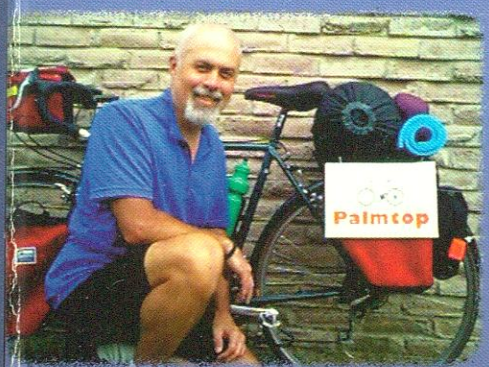
Palmtop

The journal for today's Psion user

Issue 13 Bimonthly

FIVE'S ALIVE

The Series 5 - Psion's new powerhouse



ON TOUR!

Around North America with a 3c and a bike

Palmtop

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Submissions

Any contributions of material published within the pages of *PALMTOP* (excluding 'On The Net') will earn the author a minimum of one free issue added to their subscription. If you wish to write feature articles for the magazine then please contact the editor to discuss your ideas.

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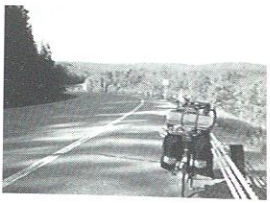

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Editorial

Just as industry-aware Psion users were beginning to twitch nervously at the sight of those much-hyped Windows CE machines looming on the horizon, Psion bring in the Seventh Cavalry—the new Series 5. No *3d* or *4*, but a self-confident product jump of two entire marques.

Psion's claim is predictably that their new pride and joy is a sufficient leap forward to warrant them skipping the '4' moniker entirely. And the truth? Well, it's certainly very different to the 3 Series range in many fundamental areas. By fundamental I don't mean that the software has some new features and that some of the shortcut keystrokes have changed—more that the machine works in some rather different ways.

The new 32-bit operating system offers a level of sophistication beyond what we have seen on Psion computers to date. The pen gives the equivalent of PC-like mouse input, making the built-in SKETCH program a genuinely useful addition rather than what would otherwise be more of gimmick value. In the same vein the sound recording application has been elevated to a more useful plane by some enhanced software, improved data compression, the addition of control buttons and an indicator light on the exterior of the machine's casing. This provides an ever-ready tapeless dictaphone.

Although it offers no truly new functionality in itself, the keyboard must be the most significant overall enhancement of this new machine. Added software features pale in comparison to the benefits of a bigger and more responsive keyboard, and the Series 5 sports a real beauty. I'll bet that this will cause many people in journalistic rôles to seriously rethink their use of bulky laptop computers in favour of a Series 5. I'd expect an increase in the migration from laptop to palmtop computers over the next few years, as palmtops continue their transformation from feature-limited 'Yuppie' diaries into full featured and capable computers.

Comparing the sophistication of both software and hardware aspects, the Series 5 beats the current crop of Windows CE machines—*hands down*. We'd be foolish to think that Microsoft *can't* catch up eventually if they throw enough of their seemingly limitless resources in the right direction, and the second generation of Windows CE machines are due out before the end of the year, but for now Psion have a head start that gives them enough breathing space in which to come up with something even better for the future.

With Microsoft now in the game we can expect to see Psion racing ahead for all they're worth in order to maintain their lead—their very life depends upon it. I wouldn't be surprised to see new variants of the Series 5 appearing two or three times a year from now on.

While evaluating one of the Hewlett Packard Windows CE machines as a comparison against the '5' I was quite astonished at how little the CE machines offer, and how well even the Series 3a/3c and Siena compare against them in many areas.

Notwithstanding the PC-compatibility hype, the Series 3a/3c offer a far more capable word processor and diary than the CE machines, the spreadsheet is better in most respects, the database is more flexible, the machine is smaller, lighter, cheaper, offers far more software solutions, and it generally has better PC compatibility—that's right, *better* PC compatibility.

If palmtop computer buyers are smart enough to choose on the strength of real computing power rather than marketing hype then Psion will prevail and CE will fall by the wayside—for the time being at least.

I can only urge prospective purchasers to try out the various machines before making a decision, and to let the Psion computers speak for themselves.

Steve Clack - July 1997

Palmtop is...

Steve Clack - Publishing Editor

Pete Sipple - Associate Editor

Leigh Edwards - Technical Consultant

Steve Litchfield - Senior Contributor

Rosemary Rolfe - Distribution Manager

Thanks... to all the contributors whose names appear within the magazine, particularly Stephen Murgan and Rick Andrews for their regular contributions. Thanks also to all those who have kindly supplied their products for evaluation.

New style!

As you can see, we've made some big changes to *Palmtop* in this issue. The new binding style improves the appearance of the magazine and means that we can now increase the number of pages without having to worry about the staples falling out.

Other improvements include a summary box in the reviews to include a quick reference 'star' rating system, plus an expanded editorial and contents section.

We hope you like the changes to the magazine, and please contact us if you have any suggestions...

Palmtop News

The latest hot gossip on what's happening in the Psion world

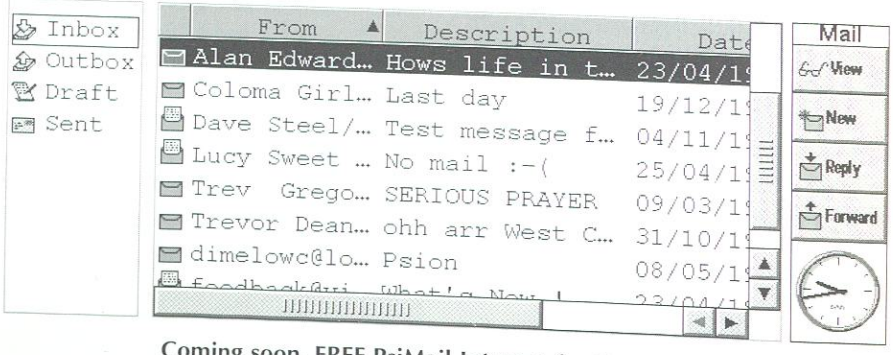
Series 5 arrives

After numerous rumours and unofficial 'leaks', Psion's new Series 5 computer was released at press launches held on 16th June in London and New York.

The machine is described in detail elsewhere within this issue, but is available in 4Mb and 8Mb variants, at £439 and £499 respectively (including VAT). Prices also include their new *PsiWin 2* software on CD, together with a PC link cable.

And 3c prices down—again!

Following reductions earlier this year, Series 3c prices were again dropped substantially in advance of the Series 5 release. UK RRPs for the 3c models are now as follows: 2Mb backlit - £329, 2Mb non-backlit - £299, 1Mb (non-backlit) - £269 (all prices include VAT). Psion are also offering the 2Mb backlit machine with bundled PsiWin at £369. Although not official, it seems likely that Siena prices will drop shortly to put them more in line with the 3c.



Coming soon, FREE PsiMail Internet for the Series 5

FREE PsiMail Internet

Reportedly available 'very soon now', the new *PsiMail Internet* e-mail/web browser package for the Series 5 will be available for FREE download from Psion's World Wide Web site.

And free faxing...

Available now, Psion are offering free software for fax send *and receive* for the Series 5. The software is available from their official WWW site:

http://www.psion.com/

Fax *into* your Series 3

SIU-Fax, produced in Germany, looks like it may hold the answer for Series 3a/3c users who want to *receive* faxes to their machines. At the time of going to press, SIU-Fax only works with certain modems, excluding US Robotics models and non-German *Psion Travel Modems*. We understand that the programmers are working to make this product more compatible with mainstream modems, and we hope to bring you a full review in the next issue.

Series 5 software on the way

Because the Series 5 uses the all-new EPOC32 operating system, existing Series 3 software will not run without modification. A few of the major software vendors have been quick to get to work on the new software platform however, and a few selected titles are either available already, or due out within a few weeks. Expect a steady stream of new products to appear, and we will be covering the first of them in the next issue.

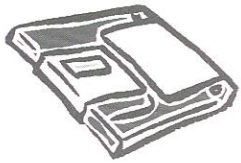
PsiMac, the good news and the bad...

Apple Macintosh users may have eagerly read in the latest copy of *Psion User* that a full-blown *PsiMac* package will shortly be available for the Series 3a/3c/Siena. The program will offer almost the same functionality as the new *PsiWin 2.0*, allowing easy drag and drop file transfer and conversion between the two machines.

Whereas this is great (and much-belated) news for Series 3 owners, the news on PsiMac for the Series 5 is disastrous. It will be available later this year, but will *not* offer any file conversion options, and will only be useful for system backup operations. The Series 5's lack of file export options also makes it impossible to save your Psion files in a compatible format and perform the file conversion directly on your Mac.

Shareware Shorts

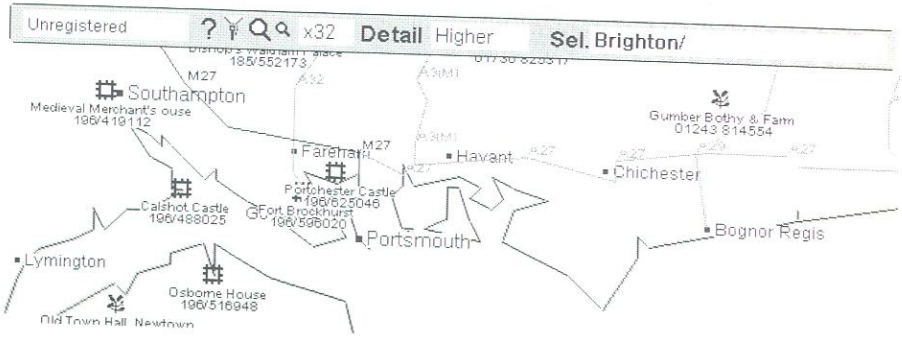
There's always something new and interesting in the world of Psion shareware. Pete Sipple investigates some of the newest programs and keeps us updated...



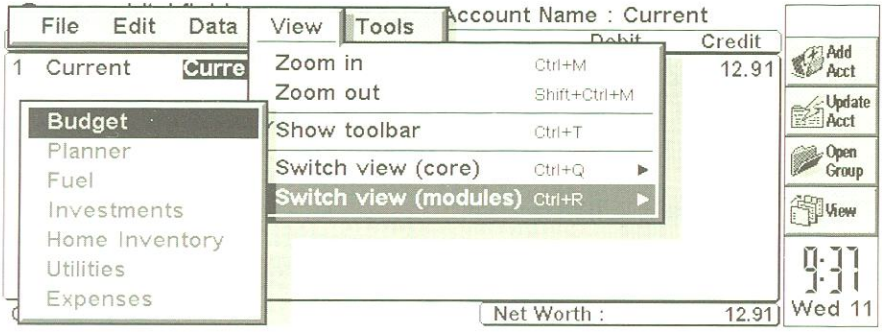
The Series 5

Just a few days after the launch of the new machines, some of the first shareware programs were announced. Steve Litchfield and Alan Richey must win joint first prize for being quick off the mark and making Series 5 versions of their most popular packages available. Steve's *Psi-Mapper/GB* **MAP5GB51.ZIP (420K)**, and Alan's *S5Bank* **S5BANK10.ZIP (399K)**

As none of the existing shareware will run on a Series 5, software authors around the world are working on porting their programs onto the new machines. We can expect a steady stream of applications for Psion's new platform in coming weeks.



The full featured Psi-Mapper/GB



The latest incarnation of the powerful finance package, S5Bank

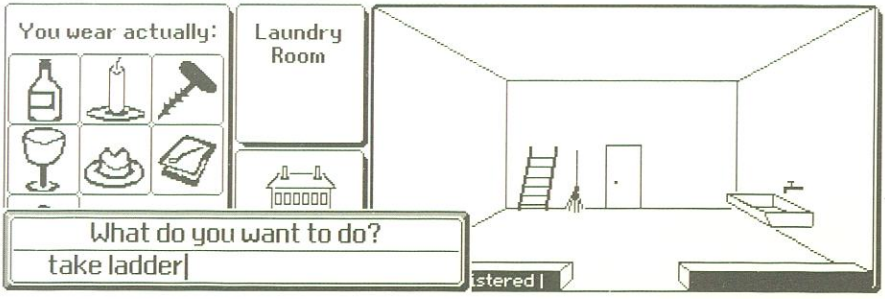
Spooky!

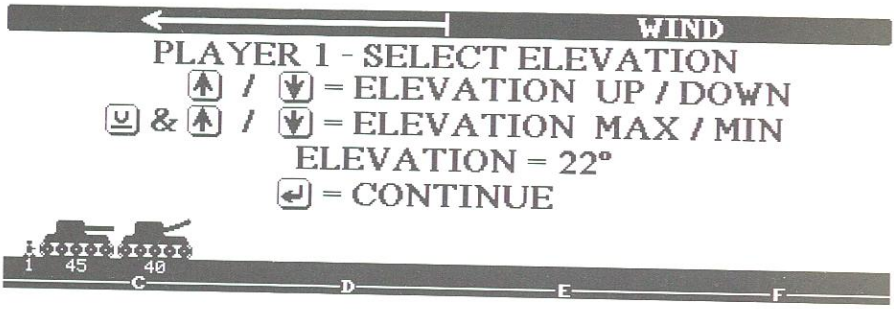
Apparently based on a true story, this clever little adventure game allows you to stroll through a haunted house, 'ghostbusting'. Any fan of the old text-based Infocom games will feel at home, as you instruct the machine with commands like 'get hat' and 'switch on light'. The beauty of this program is that you get a picture to accompany the text. On your travels you collect items to help solve puzzles—I'm stuck trying to open an attic hatch with a corkscrew and a lasso at the moment. Let me know if you can help! Definitely one to try.
HHOUSE.ZIP (47K)

Red Alert

Alerts for the 3a/3c is a useful alternative to the Psion alarm clock, and allows alarms to be set for a 'one-off' ring. If you want to set an alarm to remind you of something, this allows you to get the message without constant repeats. Kinder to your battery life.
ALERTS10.ZIP (11K)

A short, sharp, shock. Red Alert





This means WAR!

This is War

WAR from Gamesmaster Ben Vaughan is one of those easy-to-play but hard-to-master games—it's also very addictive! You're in command of infantry, artillery and tanks. Your mission—to destroy the enemy's HQ with cunning deployment of your troops and use of air strikes. You can even enlist the help of the Martians, but they're not to be trusted. Be prepared to grin when you miss for the first time (play it, and you'll find out what I mean!) Running on the 3a/3c or Siena, this ingenious game has animated graphics, loads of levels and some excellent sounds. **WAR_12.ZIP (86K)**

Launch time

Launch Pad v2.01F is an application launcher similar to *JBLaunch*, but this version allows for multiple files to be started, with multiple buttons. **LPAD201F.ZIP (17K)**

A new Outlook...

Users of Microsoft's *Office 97* may be glad to know that there's now a way to synchronize your *Outlook 97* diary and contacts data with a Psion 3a, 3c or Siena. This program also allows you to upload simple e-mail messages to Outlook. **OUTLOOKS.EXE (2.1Mb)**

Some other newcomers

US Psion users with access to a modem might find this useful. A number of places around the world offer a dial-up time service to computer users. This small program will dial the service offered by the US National Institute of Standards and Technology and set your 3a/3c clock to the precise time. **NISTTIME.ZIP (13K)**

Bible Reader for the Psion 3a/3c allows you to read either the King James (Authorized) New Testament or the Old Testament on your 3a/3c. It lets you search for text, has font zooming and lets you make bookmarks. The program file is **BIBLE11.ZIP (28K),** with several separate data files.

FlowPoc Lite for the 3a/3c is a script oriented flowchart application with several layout options. It's currently being beta tested, but the early version looks good. **FLOWPL.ZIP (100K)**

REGPLATE.DBF (10K) is a small database of UK car registration details which let you pinpoint the town of registration.

RealTime is a collection of utilities in a small package, including a birthday calculator, battery usage and free RAM space. Best of all, it tells you what day of the week it is—in big letters! **REALTIME.ZIP (12K)**

New for the Siena...

Coming to a Siena near you, the excellent *JBTree* file manager is currently in beta test and will hopefully be released soon. **JBTREES.ZIP (28K)** can be found on John Boyce's homepage.

Following on from *Tube* for the Psion 3a/3c, you can now navigate around London's underground on your Siena. *Tube* is available direct from SW Systems (see issue 6).

Many of the programs listed here can be found on the Palmtop Magazine website: http://www.palmtop.co.uk/

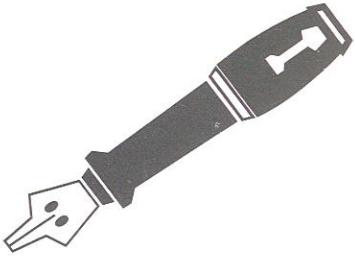
If you can't find a particular piece of software mentioned above, or you've found an excellent program that I've missed, please e-mail me at *petesipple@aol.com*

Get ALL the shareware featured in this issue on a floppy disk - see page 117

Readers' Letters

Contribute and WIN PRIZES!

The Prize Letter in each issue wins the author a FREE software package or other Psion goodies from our special collection. Prizes are valued at up to £70 each!



Clangers...

I don't know what it is, but I think I must be a bit slow on the uptake or something. Every time I purchase anything to do with computers I drop a clanger...

You see it's like this: my very first experience of buying a computer was when I bought an Acorn A5000. At the time it was their top model and had plenty of expansion possibilities. (Some may laugh, but I am as much an *Acornite* as I am a *Psionite*)—CLANG!

A few months down the road and Acorn decided to drop the A5000 and replace it with the RISC PC. Anyway, after some time I became interested in the Psion 3a, at the time only available as either 256K or 512K models. After a bit of wife convincing I bought the 256K machine and was a proud man—CLANG!

A few weeks later and out came the 1Mb which resulted in a price drop for the others. I managed with the small memory for quite some time, and then out came the 3c. Now I *know* this was not intended as an upgrade to the 3a, but I could justify the purchase of one for the memory increase alone, and also my wife could use the 3a. I didn't rush into anything and waited until the backlit version came out. £399 and six months interest free credit was just what I wanted, so off I went and purchased one. CLANG!—would you believe it—I bought it on 21st of May, and one month later it was £70 cheaper! It's not that I don't like my 3c, but that £70 would have bought me *PsiWin*. In fact I probably would not want to buy the Series 5 (desperately trying to convince myself)—it's just that I keep on dropping these clangers and I am now beginning to wonder if I might be from another planet.

One plus to this (although not to my wallet), is that after using my old 3a for a short while my wife is now the owner of a 1Mb Siena—Oh no! I hope that's not another CLANG!!!

Yours, worried and short of money,

Len Baker, Leicester
...now where is my friend the soup dragon?

Total! Psion Beginners

In response to your review of *Total! Psion Beginners* in issue 12, I'd like to make two points. Firstly, thanks for acknowledging that the book is well structured and illustrated, and that I've succeeded in producing a practical and informative book for Psion users.

Secondly, having accepted the praise, I have to take the criticisms. Although I do establish a number of conventions in the first chapter of the book, I take your point that putting menu names into a different text style would have helped clarify matters. I also understand your concern for the raw beginner when discussing the absence of punctuation. Future editions of the book will be thoroughly edited with this in mind.

In the meantime, if any of your readers would like to purchase the book, I'll give a money back guarantee should they not understand it to their satisfaction. Finally, please note our correct telephone number for ordering: (01604) 832149. The book comes with a floppy disk, which contains freeware and shareware programs for readers to try.

Mark Webb
Bruce Smith Books

More on Scrabble

Concerning Mr Hope's letter on software copy protection in issue 12, copy protection on *Scrabble* is a contractual obligation imposed by Spears, who own the copyright on the game. We understand the technical and economic reasons put forward by the reader, but the answer is that most licencees have copyrights to deal with, and copy protection is the way they are imposed!

Also, seeing your review of the Widget null modem adaptor, Psion's own null modem adaptor can be ordered directly through Customer Services on (0990) 143050, priced at £9.95 +£1.50 p&p. They can be ordered through retailers, but generally they don't stock these low value, small accessories.

Simon Derry,
Customer Services Manager, Psion UK

The insidious bloatware

I wonder if PC manufacturers and software writers should be made to spend one month with their PCs confiscated and use a Series 3a instead—perhaps then they might appreciate how out of control their equipment and software

has got. We have Microsoft forcing ever-larger applications upon us (the new version of *Works* is rumoured to require 150Mb of disk space), that by necessity require ever-faster processors and incredible amounts of memory in order to run any faster than a tortoise on strike.

Am I the only person who can remember the memory saving tips required to squeeze 'Space Invaders' onto a ZX81 with its (at that time unheard of in home computing) phenomenal 1K of RAM? I cannot understand why so much of the software is so large; is it purely down to superfluous features that nobody really wants, or is it down to sloppy code?

Where will we be in another 10 years? Will Windows 2007 require yet more RAM (say 100Mb) and yet more disk space (say 1Gb)? I have a copy of Windows 286, which can just be forced onto a 1.44Mb floppy, with mouse drivers and DOS operating system all on the one disk, and it runs in 640K of RAM. This dates from around 1987—now Win95 takes around 40Mb and runs in >8Mb RAM, a 27-fold increase in disk space and a 12-fold increase in RAM requirements. Applying this formula to the next 10 years gives us 1Gb of disk space and 96Mb of RAM.

If I could see some great advantage in all this over the Psion Series 3/3a/3c I could understand it, but we have a superb operating system, a full 'Graphical User Interface', so the only thing we may be lacking is a larger or colour screen. We also have a much more stable platform: in five years I have never lost *any* data due to a failure of the operating system and have never had to perform even a 'soft' reset—something which cannot be said about the PC. I can't see what Psion could do to improve on the Series 3 with the Series 5—they could reduce its appeal by not including OPL, but I'm sure this has helped to drive its success. I suppose that colour might improve it a little, but do we really need it?

Mark Stevenson
Mablethorpe, Lincolnshire

Another tragic tale...

I can totally—*but totally*—identify with Peter Reynolds of London (Readers' Letters, Issue 12). I, too, was wholeheartedly committed to Psion and am directly responsible for over 20 other people (family, friends, colleagues) having bought Psion Series 3 machines. I even go back to *Organiser* days.

Last summer my wife and I visited the USA. At considerable expense I purchased the US version of *Autoroute Express* for the Psion (from the USA), as the product is not easily available outside the USA.

Without a paper map to our name, we started our trip. On the third day my Psion developed problems, then stopped functioning altogether. This was a relatively new 3a. There we were, in the middle of America—no maps, no

phone numbers and no financial records!

Upon our return home, I called the Psion Service Centre. A personable young man was able to tell me that I had a faulty memory chip—a manufacturing fault—and that the machine would be replaced.

A few weeks later, we visited England and Psion indeed replaced the machine. At Heathrow, I purchased a second 3a (for my wife). After a few weeks this too started to malfunction. After more frantic phone calls to Psion, the new machine was sent by courier for repair, and returned by courier. Total cost to me, just for the courier services: £125.

Psion made no charge (it was still in the warranty period) but, when I asked to know what repair had been made, I was told that I would have to pay £15 for an engineer's report.

This second 3a is now sitting in the house like an unturned stone. My wife is afraid to commit anything of importance to it, and reverted to pencil and paper. All I can do is to echo Peter Reynolds' sentiment: "Go to hell Psion. You had me for life but you blew it".

Nathan Ginsbury
Jerusalem, Israel

My Psion lifeline

I read with interest an article in a back issue of *Palmtop*, discussing the possible detrimental effect on short term memory caused by using a Psion to 'remember' everything for you. Maybe my experiences might contribute towards this discussion, albeit from a different perspective?

I have a long-term illness which causes a wide range of disabilities, both physical and mental. Before I became ill my memory was excellent, but since then it has deteriorated considerably. This was one of the reasons why I bought a Psion.

As a student (Ph.D) on a limited budget it was a major purchase, but it has repaid itself many times since. I use it to make notes for my work and also to prepare lists to see me through the day. I previously kept paper notes, but my memory is so bad that I would lose just about every sheet I wrote things down on! Obviously I've got to be careful not to lose my new friend—but so far so good!

The main point is that my Psion allows me to overcome my memory problems, allowing me to get on with my work rather than fighting an uphill battle all the time. It's got numerous other advantages such as being light and portable so I can work anytime, anywhere. The keyboard is small, yes, but I've got small fingers so can touch-type quite easily on it. I've tried laptops in the past but I'm not strong enough to use those now. All in all the Psion is just my cup of tea!

Vivienne S Dunstan (Mrs)
Cupar, Fife

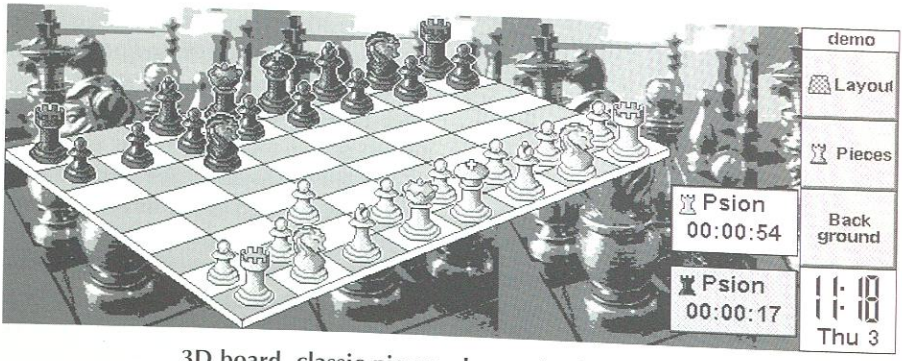
A Closer Look...

...at some of the newest and most interesting products available for your Series 3, Series 5 and Siena

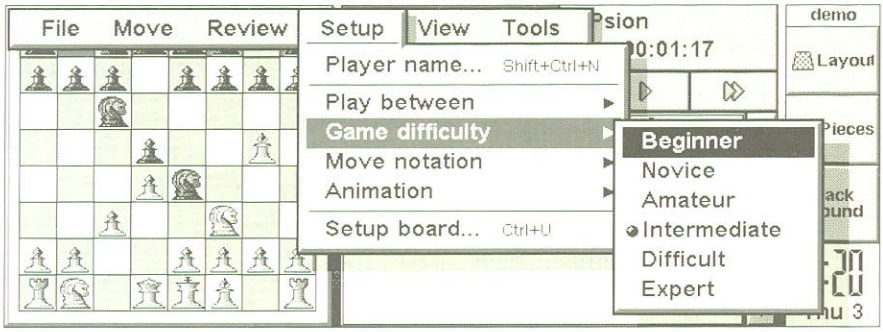
Series 5 Chess

As usual, Purple Software have been very quick off the mark in converting their software for a new Psion machine. Chess is perhaps their best known leisure title, and one which has been reviewed in both 3a and Siena guises in *Palmtop* issues 5 and 11 respectively.

A new machine, a new livery. Purple have revamped all their packaging for the Series 5—and very smart it looks too—though for most of us it's what is contained *inside* the box that's important. Chess doesn't disappoint. Without repeating the other reviews, suffice to say that Purple Software's version has been the definitive Chess game since the day Psion decided to give up on their own original Series 3 product. The



3D board, classic pieces, decorative background

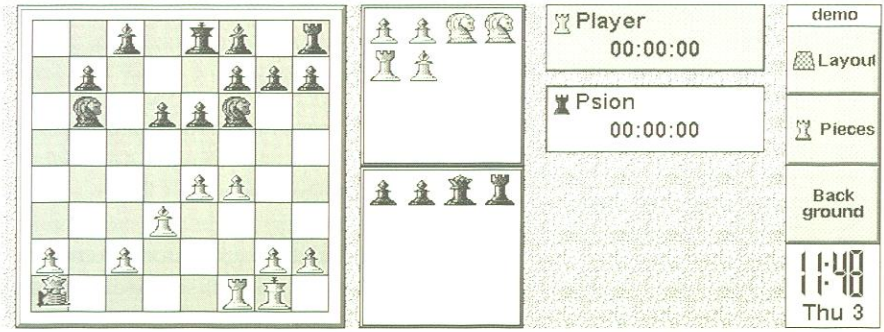


Options, options. Chess makes good use of the Series 5's new nested menus

graphics and game options are as comprehensive as ever and the standard of game play goes up, somewhere beyond club level on the highest of the difficulty settings. Using 'Intermediate' mode, at around 30 seconds per computer move, Chess was a worthy opponent for my more limited skill.

The Series 5 version has been improved in several ways that will impress serious chess players. Features like importing and exporting of ASCII and Forsythe boards, a choice of four move notation systems and comprehensive board setup options will have seasoned club players salivating.

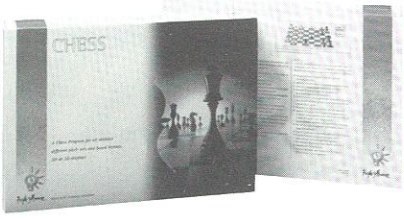
Beginners aren't forgotten either, with an excellent tutorial and 25 master games which can be replayed either manually or automatically. The touch-screen of the Series 5 is used very expertly to allow 'drag and drop' on each piece, though with all that dragging across the screen it's a good idea to clean your screen regularly, or you'll risk scratching it sooner or later if a tiny piece of grit ever gets dragged around by your pen. If you prefer keyboard



A simple 2D board showing taken pieces and elapsed time

operation the pieces can also be selected using the arrow keys and <Enter>.

The board layout options cover not only various two and three dimensional board styles (with or without move histories displayed on screen), but also different style playing pieces, backgrounds, and even different 3D perspectives. Purple have really 'gone to town' on this package, and it's a showcase of good programming.



I couldn't find much to criticize with Chess. A trivial spelling mistake on the main menu and the similarity between bishops and pawns are the best I can come up with. So buy, load, learn and enjoy!

Steve Litchfield

Chess

From: all major Psion dealers

Availability: now

Contact: Purple Software Ltd
tel: (0171) 3877777

Runs on: Series 5

Supplied on: floppy disk only

Price: £49.95 including VAT

Rating:

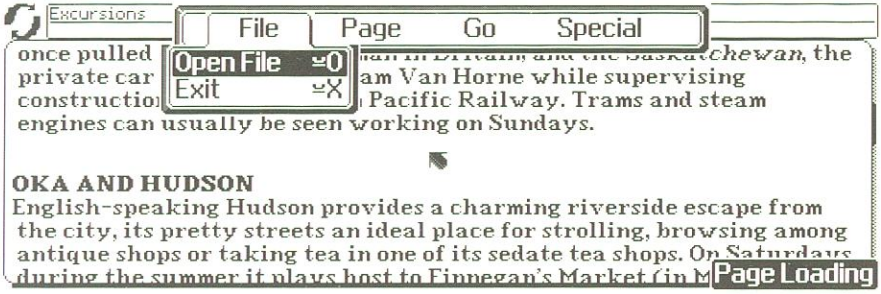
Travel Companion

At first sight, the interface of On-Board Info's *Travel Companion* seems similar to its earlier stablemate 'Business Almanac', reviewed in issue 11. Travel Companion is the marriage of a Microsoft Windows installation routine, PC and Psion off-line hypertext viewers plus a quarter of a megabyte of HTML files for each city that you're interested in. On-Board Info do two versions of the package: European (with 10 cities included) and World (with 22). The cities are as follows:

European Travel Companion: Amsterdam, Berlin, London, Madrid, Moscow, Munich, Paris, Prague, Rome and Vienna.

World Travel Companion: all 10 European cities, plus Atlanta, Bangkok, Chicago, Hong Kong, Los Angeles, Montréal, New York, San Francisco, Singapore, Sydney, Tokyo and Washington DC.

The Companions comprise around 80% of the textual data from the *AA CityPack* series of books, which have sold 2 million copies in the past year or so. Topics include background information on each city, several sightseeing itineraries ranging from a single evening to full days, the top 25 sights in each loca-


Excursions
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once pulled
private car
constructio
am Van Horne while supervising
Pacific Railway. Trams and steam
engines can usually be seen working on Sundays.
OKA AND HUDSON
English-speaking Hudson provides a charming riverside escape from the city, its pretty streets an ideal place for strolling, browsing among antique shops or taking tea in one of its sedate tea shops. On Saturdays
Page Loading

tion, hotels, restaurants, entertainment, travel facts, other information and useful phrases.

Provided you have the necessary disk space on your Psion 3a/3c, plus another 150K or so for the off-line viewer to live and work in, Travel Companion works fairly well. Certainly the hypertext engine is faster than the one in 'Business Almanac', though it's no speedster—the average page of information still takes up to 15 seconds to display fully, before you can even begin to search it for a particular word. On-Board Info have chosen to use HTML, as this makes the information files extremely portable across almost every computer platform. Unfortunately it also makes poor use of the Psion's expensive disk space, especially compared to rival Mobile Software's fast compressed data engine (as used in Nicholson London Guide and others).

Ultimately it's the information that matters though, and Travel Companion's city data is very good in both depth and coverage. There are even map references for most items on the special city maps provided by On-Board Info. Most people will only be loading one city at a time from the friendly Windows front-end, and in that case perhaps the advantages of having one less guide book to carry around will outweigh any disadvantages caused by its comparative slowness.

Steve Litchfield

Travel Companion

From: On Board-Info and major Psion dealers

Availability: now

Contact: On-Board Info Ltd tel: (0171) 3700307

Runs on: Series 3a/3c & Siena

Supplied on: floppy disk, or order & download directly from *http://www.on-board-info.com*

Price: £24.95 Europe / £29.95 World (both including VAT)

Rating:

Shark a Tax

Shark a Tax is designed to help you complete your Tax Return and work out your tax liability for the year ended 5th April 1997. It attempts to do for the Psion what *TaxCalc* and similar programs do for the PC, but how well does it achieve that goal?

I am a practising accountant used to having tax industry heavyweight software at my disposal, so it was a bit of a culture shock being asked to review this 'miniature' program written by a fellow accountant. The software comes in three sections: the application for filling in the Tax Return itself, the application for completing the tax calculations, and a tax database.

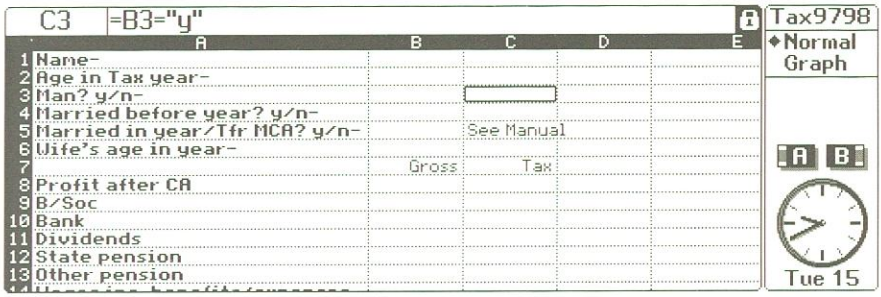
My first impression was that the first two parts (called 'Tax 96/97' and 'Self 96/97') were obviously SHEET based. And why not? They function perfectly well, but are not too pretty from a presentational point of view. The Tax Return application was adequate, but if I were the average tax payer struggling with my Return, I would like the detail of my income broken down into its component parts. I suspect that this would not be too difficult to achieve in future releases. You can of course include formulae in the individual cells, but without the narrative, what made sense when you entered it may be only a dim recollection a month later when the Inspector telephones you on a point of clarification.

That said, the application worked perfectly well, and has calculated a number of my clients' tax positions correctly. The fact that I can do this 'on the hoof' is the program's major advantage to me. *Shark A Tax* is only for the straightforward taxpayer who just wants reassurance of a basically non-contentious tax liability, but it can also be helpful in the spreadsheet's forte: the 'What-if?' scenarios.

'Tax 96/97' doesn't handle the problems that emerge with stock dividends (where you receive shares instead of money) and foreign dividends, nor does it handle higher rates problems caused by charitable giving, but the author advises that the other program, 'Self 96/97' can deal with these matters. Self 96/97 is a direct copy of the Revenue Tax Calculation Guide—the very thing you wanted to avoid when you bought *Shark A Tax*. I'd like to have seen these two separate parts merged into one with a bit of cunning cell referencing, so this almost incomprehensible form could be completed with only minor interference from the user. It doesn't cover 'benefits in kind', and this is a major omission, as I suspect that many Psion users would be a likely recipient of such benefits.

The tax database is great for me. It goes back a number of years, and it is a nice extra—though I can't really see that this historic stuff will be of much use to the average taxpayer.

My installation was from a floppy disk, and the manual gave clear instructions



on how to carry out the job. I confess that I just followed standard PsiWin routines and checked on the instructions later (that's why I am an accountant, not a computer whiz-kid). It loaded first time with no difficulty, and it can also be supplied on SSD.

The documentation is minimal, but is just fine. The Revenue documents issued with this year's Return cover everything they want you to know, so the manual just deals with points of clarification that are needed to complete the spreadsheet.

The tax calculation, Self 96/97, being a straight copy of the Revenue document, left me referring more and more to the Revenue worksheets (which are easier to read) and it is here that the greatest improvements have to be made. This software's big brothers on the PC complete this dreadful document automatically, and that has to be the best way forward.

The product is favourably priced at £20 for the floppy disk (in fact, only £15 for an update from last year's product), which is around half the price of the nearest PC equivalent. The SSD carries the usual silly price tag, but that's not the author's fault. Overall it represents fair value for money, but I would be prepared to pay another tenner to see the above problems addressed satisfactorily, and it would still be good value.

The best recommendation I can give is that I use Tax 96/97 about once a week (52 times more than the average taxpayer) and it works.

Miles Cary

Shark A Tax

From: directly from Shark A Tax only

Availability: now

Contact: Shark A Tax
tel: (01267) 241443

Runs on: Series 3a/3c/Siena

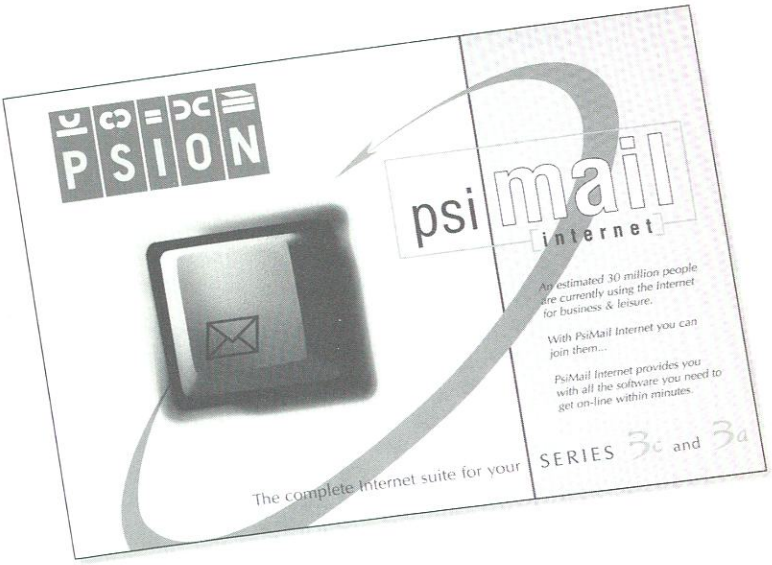
Supplied on: floppy disk or SSD

Price: £20 on disk, SSD—call

Rating:

WIN a copy of PsiMail Internet!

Just answer the following questions relating to the contents of this issue, and mail your answers to the usual *Palmtop* address. One correct entry picked out at random on 31st August will receive the prize. If you don't want PsiMail Internet then you can choose another prize of equivalent value from our special selection.


PSION
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An estimated 30 million people are currently using the Internet for business & leisure.
With PsiMail Internet you can join them...
PsiMail Internet provides you with all the software you need to get on-line within minutes.
The complete Internet suite for your SERIES 3c and 3a

Question 1 -How many minutes of sound can the Series 5 store in 1Mb?

Question 2 -What is the *entire* active screen area of the Series 5 (in pixels)?

Question 3 - How far did Alan Thwaits travel with his Series 3c?

Last issue's competition winner was Jonathan Buisson of Wimbledon Park, London

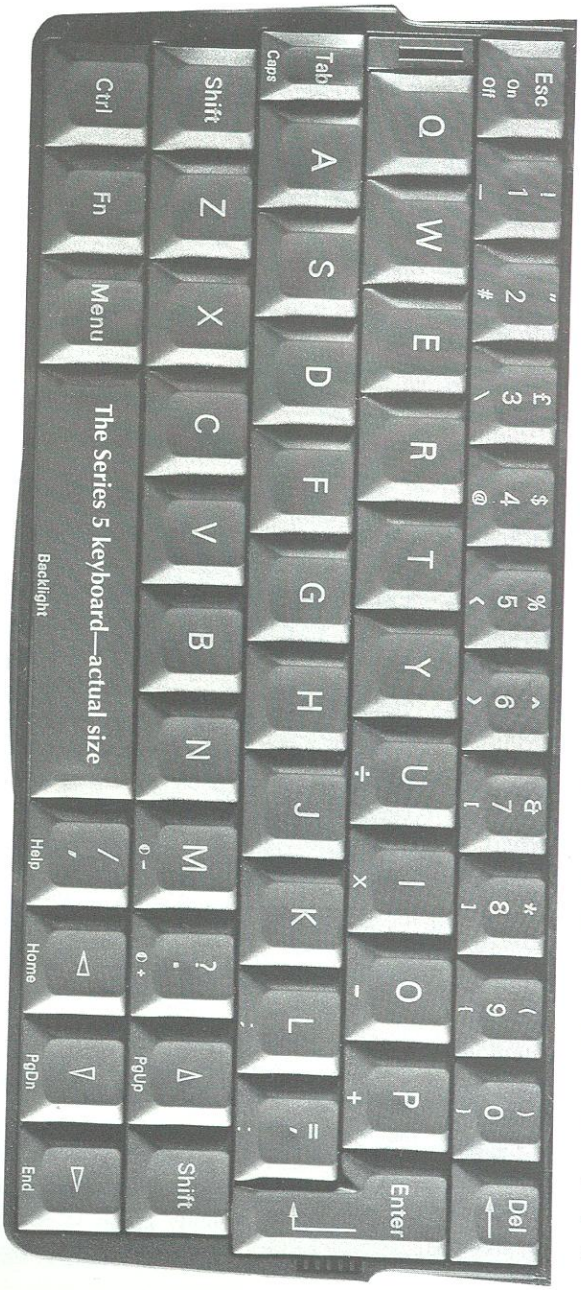
5's Alive!

At long last the Series 5 is here. We have spent many hours putting it through its paces, and over the next 37 pages we cut through the hype...

At first glance the new Series 5 doesn't look vastly different to the Series 3. It sports the same almost-matt dark grey finish, and is only a few millimetres larger in every dimension. The first major surprise comes when you try to open the machine: the keyboard is mounted on a separate plane, which slides forwards over the bottom half of the machine, finally overhanging the front of the main casing by about 30mm when it is fully opened.

The keyboard

Once open, your eyes will probably linger on the keyboard. At 164mm in width it's less than 10% bigger than the Series 3 keyboard, but by comparison the keys are *enormous*. At 14mm square the main keys are almost *twice* the size of the Series 3's, with almost no space between them. The keytops are nicely bevelled along the front and sides, have over 1mm of vertical travel when pressed, and they feel just *gorgeous*. In my opinion the keyboard is the single most important technical advance of the Series 5. That's not to decry all the other important enhancements, but the primary input device is always the most important part of any portable computer, as a poor one can effectively render a machine useless. Having tried numerous palmtop keyboards in the past, the Series 5 example beats all the others by a mile. The responsiveness puts a number of laptop keyboards to shame, and a reasonable touch typist should have little trouble typing with several (but not all) fingers. The limited space available for the keys does mean that some of the punctuation marks and special characters crop up in rather odd places (the comma is beneath the period key for instance, instead of adjacent to it), but this is a small price to pay for what is a marvellous piece of engineering and an unreserved joy to use.

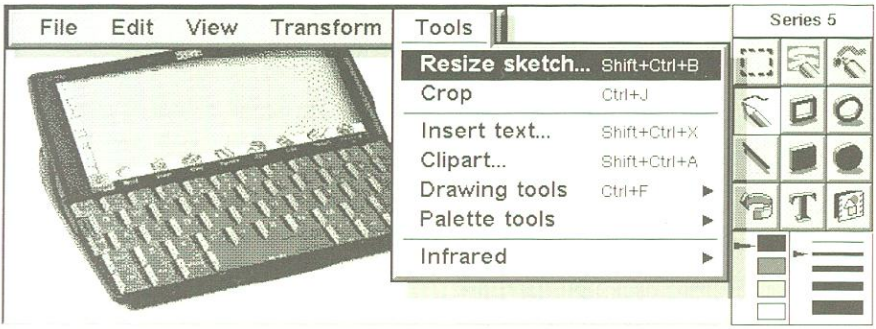


The fact that the bottom two rows of keys are entirely overhanging the base of the machine doesn't cause any undue flexing of the keyboard, and the whole unit feels admirably solid.

The screen

With exactly twice as many pixels as the 3a/3c, the large 640x240 (half VGA) screen of the Series 5 has space for much more text, spreadsheet cells, or whatever data you happen to be displaying. It offers 16 shades of 'grey', though very little software will use this mode as it greatly increases battery consumption. In practice, all of the built-in software and other applications I have seen operate entirely in 'four colour' mode (white, black, plus two shades of grey). This is still an improvement over the single greyscale of the 3a/3c, and in *good* lighting the screen looks impressive.

The overall contrast of the screen is slightly inferior to the backlit Series 3c, and the addition of a touch-sensitive layer gives the

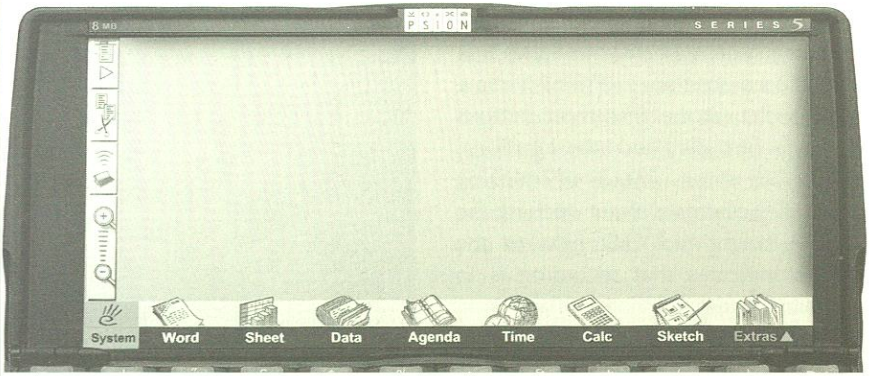


The new high resolution, greyscale screen

screen an unpleasantly reflective appearance when viewed in all but the most ideal lighting conditions. To minimize eye strain I find myself using the switchable backlight almost all of the time, which increases the power consumption from a relatively modest 45mA to a substantial 145mA or so. This gives a rather brief battery life of around 9-12 hours. Psion claim a 35 hour battery life *without* use of the backlight, but unless you work in ideal (bright) lighting conditions you should be prepared for much less.

The screen is certainly large, but the so-so readability is the biggest disappointment of the whole machine. To put this into context though it is similar to other backlit, touch-sensitive palmtop screens, so the limitation is imposed by the current state of the underlying technology rather than any shortcomings in Psion's design of the machine.

Looking around the edges of the screen, a row of icons along the bottom are all part of the touch sensitive matrix, and give access to the main built-in applications, just like on the Series 3. Another



strip down the left side is used for alternative access to the menu bar, copy/cut/paste selection, infrared send/receive, and zooming of font sizes in all applications. All of these functions are duplicated by menu selections and keyboard shortcuts, but these extra soft-keys are well placed and useful.

And outside...

Moving to the exterior of the machine, the most noticeable oddity is the group of three partially concealed buttons along the front bottom edge of the casing. These control the new digital recording system when your Series 5 is in the closed position, and turns it into a tapeless dictaphone. The three buttons are for record, play and stop functions, and double up as a means of snoozing any ringing alarms without opening the case. A bright red LED next to the buttons indicates that recording is in progress, or that a snoozed alarm is in the background.

Flipping the Series 5 over, instead of a pair of identical SSD slots it has one hinged cover to access the big DL2032 backup battery, and a larger one for the single CF (CompactFlash) slot. 'CF' is a new style of memory module also used for picture storage in digital cameras. These are currently available from Psion in sizes of 2Mb, 4Mb and 10Mb, and in even larger sizes from other manufacturers. Psion don't actually *guarantee* that other manufacturers' CF devices will work, but it is a standard specification, and there's no technical reason why they shouldn't.

No more SSDs

CompactFlash cards have almost all the benefits of both flash and RAM SSDs, as they don't require batteries, they're very secure, and deleted data is dynamically (and invisibly) erased without the need to ever actively reformat them. Anyone who has spent a lot of money on Psion

Roll-over battery cover and clip

RS232 port cover

Loudspeaker

irDA port

SSDs will probably curse the new format at first, but Psion had to make the break from proprietary technology eventually, and CF is both small and relatively inexpensive. At around £250 for a 10Mb card I envisage that most people will welcome the new format, and relish the thought of substantially cheaper storage. Expect CF prices to fall as the digital camera market continues to evolve, and for storage capacities to grow up to 100Mb and beyond in the foreseeable future. Other manufacturers are already producing bigger (at least 16Mb now, with 32Mb coming soon) and (much) cheaper CF cards than Psion's own offerings, so canny buyers are advised to shop around.

The mains adaptor socket looks the same as on the Series 3, but Psion have reversed the polarity and changed the 9 Volt DC input to 6V, requiring anyone upgrading from a Series 3 to purchase *yet another* AC adaptor.

The back of the Series 5 contains the main batteries (covered by a roll-over, breadbin-like plastic cover), the same RS232 serial connector as the Series 3c/Siena (but running at 115,200bps), the irDA infrared port and the loudspeaker. The other notable exterior components are the microphone to the right of the audio buttons, and *the pen*.

The pen—a new beginning

A complete novelty to Psion users, the pen is *not* used for any kind of handwriting recognition, at least not at present. Think of it as the exact equivalent of a mouse on a desktop PC, but easier. It's easier because instead of moving something around your desk to mimic movement on the computer screen, you just tap directly on the screen itself. This technique is particularly appropriate for palmtop computers as your fingers are never more than a few centimetres away from the screen, and you don't have to reach far with the pen. You can also tap with a finger if you prefer. The practicality of using a fingertip in place of the blunt-ended pointing device will depend upon the size of your fingers, but it is generally practical for most people, especially if you have serviceable fingernails.

Of course, the pen is yet another thing to lose down the back of sofas, behind desks, etc., but Psion have sensibly made it in a triangular cross-section, so at least it's unlikely to *roll* away. If you do lose it, replacements are available in packs of three for a very reasonable £4.99. When not in use the pen lives in a slot along the back of the machine, where it securely locks into place.

And within...

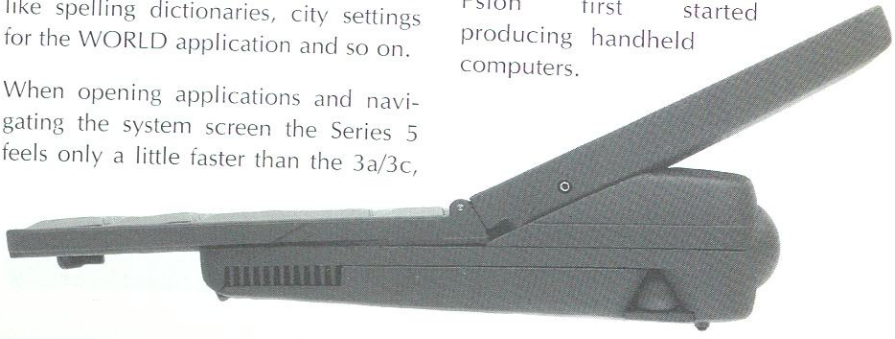
Inside the machine lies an ARM7110 microprocessor, a custom version of the 18.432Mhz ARM 710. This is a sophisticated *RISC* (Reduced Instruction Set Computing) processor with a complex power management system, and processing power roughly equivalent to a 33Mhz Intel 80486 processor used in state-of-the-art desktop PCs of 4-5 years ago.

The Series 5 also sports a full six megabytes of ROM (Read Only Memory), with a 4Mb chip housing the main operating system and software applications, and a 2Mb chip containing all the localised information like spelling dictionaries, city settings for the WORLD application and so on.

When opening applications and navigating the system screen the Series 5 feels only a little faster than the 3a/3c, but the review unit was an early model, and had the entire operating system in flash memory rather than ROM, which makes it 10-15% slower than final production machines.

In comparisons with the Series 3a/3c it performs around three times faster on large database searches and roughly twice as fast when scrolling large WORD documents. Considering that the applications are now entirely WYSIWYG and that there are now twice as many pixels and more grey levels to manipulate around the screen this is quite a feat, and shows Psion's usual aptitude for writing tight and efficient program code.

One thing we have all learnt to take for granted with Psion computers is an almost bullet-proof operating system, with system crashes being an extremely rare occurrence. After around a month of very intensive use I'm happy to say that the Series 5 didn't crash, freeze or otherwise misbehave even once. It seems that Psion's enviable reputation for writing robust operating systems will therefore continue with the Series 5, as it has done for the 12 years since Psion first started producing handheld computers.

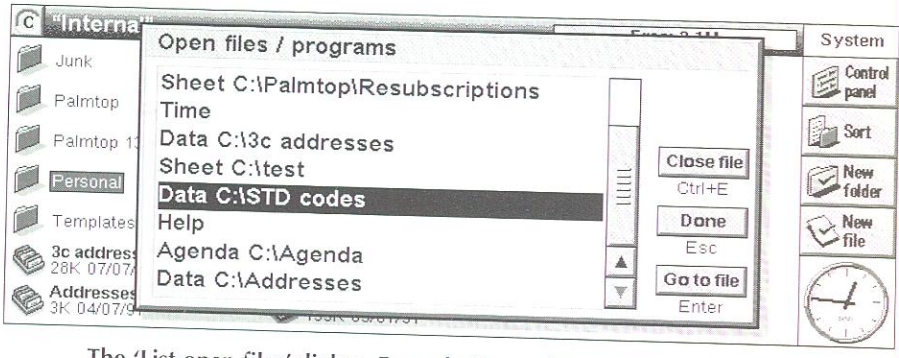


System software

At first glance the Series 5 system screen looks very different to the 3a and 3c equivalents, and indeed it is. The single horizontal row of icons with file listings beneath have been replaced by a more attractive view showing multiple columns of file and folder (directory) icons, with their names to the right. The customizable display can be zoomed to show up to 40 or so items at a time, and you can optionally view file sizes and creation dates below each title. Numerous other configuration options let you sort the file/directory lists by various criteria, adjust the text width allocated to each column, and show or hide a toolbar down the right side of the screen for quick selection of control panels, list sorting, and creation of new files and folders. These toolbars have replaced the Series 3's status window, and crop up in most Series 5 applications. They all display a system clock at the bottom of the bar. Pressing the small rectangular box at the top of the toolbar (the one containing the current filename

The Series 5 system screen, showing both files and folders

And zoomed down, with file details showing

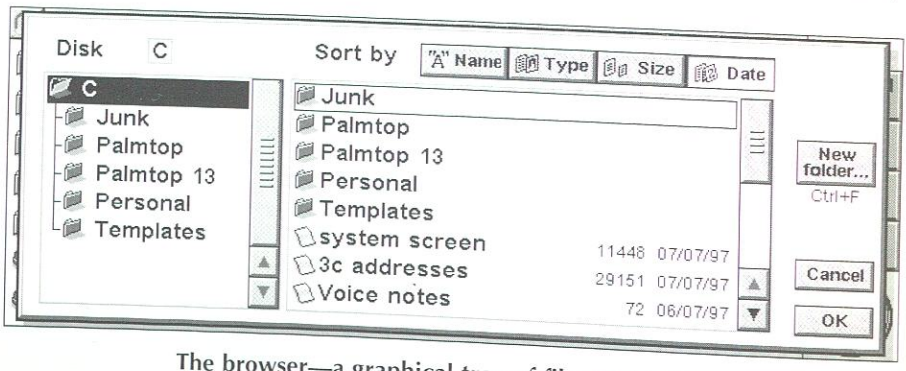


The 'List open files' dialog. Easy closing or jumping to applications

or running application) pops up a dialog box from which you can instantly close or jump to any of the programs or files currently running. This is just like Windows' *Task List*, and is an excellent way of jumping to any running program or file within no more than three taps of the screen.

The filing system

You can have up to 64 folders and files on the Series 5 'desktop' (the root directory), and an unlimited number of folders and files nested within. You can create new items by either menu selections, keyboard shortcuts, or by tapping the relevant buttons on the toolbar. Folders can contain any mix of file types from different applications, and the old three letter file extensions (.WRD, .DBF, etc.) are no longer required. Instead, file names (including disk and path names) can now consist of any combination of letters, numbers, symbols and spaces—excluding < > : / \ * ?— up to 256 characters in length. Folder names are limited to 252 characters. The system screen will only display file names of up



The browser—a graphical tree of files and folders

to 40 characters, but this is perfectly adequate.

To simplify the appearance of the system screen all the 'system' files and folders used by the underlying operating system are sensibly hidden from view. You can elect to show these if you prefer, but must be careful not to delete or move them.

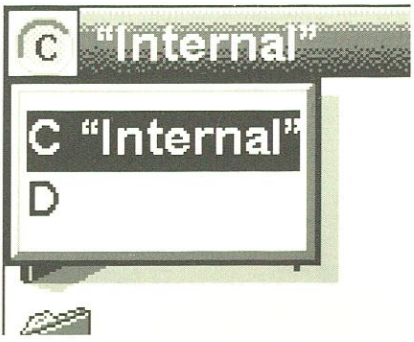
All new documents you create are saved into a 'Documents' folder by default, regardless of which application program created them. You can easily change this to a different folder name, and even create a 'bookmark' to jump quickly to it from the system screen. It's a simple matter to specify different folders when saving individual documents, so you're in no way tied to any particular setup.

To copy or move objects around the system screen just select them (you can easily select more than one at a time), then use the 'Copy' or 'Cut' commands, move the cursor to where you want them moved or copied to, and just 'Paste' them into place. This new way of working may take existing users a few minutes to get used to, but it is much easier for the novice or Windows/Mac user to grasp than the Series 3's arcane file selector.

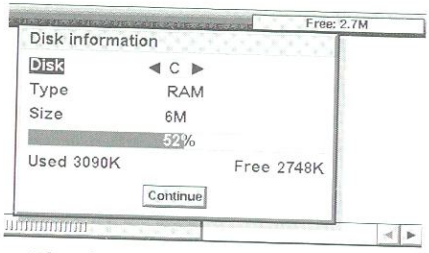
Fans of the old S3 file selector are also made to feel at home, as a quick press of the <Tab> key brings up a 'Browser', that shows the hierarchical directory structure. This isn't a full-blown file manager application, but simply offers a tree view for orientation purposes. The only actions available from the browser are to either create a new folder or jump to a highlighted folder or file. Again this is a break from convention, but the whole system works perfectly well, and the importance of its simplicity for the computer novice cannot be overemphasized. Learning the principles of a multi-level filing system is one of the biggest stumbling blocks for beginners, and Psion's use of this non-threatening but functional interface shows sound thinking.

This simplistic file manager may be too lightweight for many power users, who will prefer something less friendly but which allows all file manipulation to be done from within a single screen. Expect to see the usual multitude of third party file managers available before too long.

All the usual commands to format, copy and name disks are present and correct, and to make things more familiar to the PC user the internal memory of the machine has been renamed to 'C' instead of 'M', and the CompactFlash



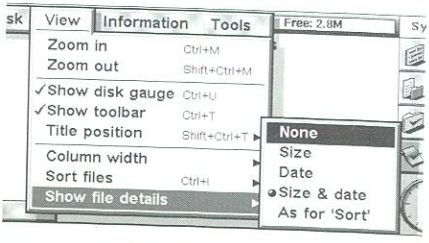
The pop-down disk selector



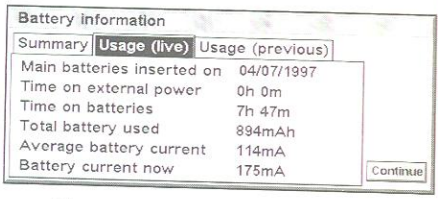
The 'fuel gauge' and disk info box

slot houses a drive 'D' instead of an 'A' or 'B'. A new black 'Title bar' appears along either the top or the left side of the system screen as you prefer, and shows the name of the currently selected disk or folder. A quick tap brings up the browser, and a tap of the little square in the top left corner of the screen allows you to jump between the internal memory and the CF slot. You can also choose to display a fuel gauge-like strip in the right hand portion of the title bar, which shows the amount of free RAM. As you might expect, tapping on the bar brings up more information—in this case a more detailed 'disk information' dialog box.

Other details such as battery usage summaries, owner information, link status and the like are all recognisable from their Series 3 counterparts, but



NEW—nested menus



Also new—tabbed dialog boxes

many of them give more detailed information. The richness of the new 32-bit operating system shows itself throughout the system by the use of refinements like nested 'menus within menus' (just like almost all desktop computers, but absent from Psions until now). Windows-like tabbed dialog boxes are *de rigeur* on the S5, and the appearance of a 'Control Panel' makes the Windows user feel even more at home. Proportional scroll bars appear in all scrollable windows, and show the rough extents of documents at a glance. The Series 5 offers configuration options at every turn, and the scroll bars can be turned off on a document-by-document basis in order to maximize screen space. This kind of attention to detail is very important when designing a palmtop computer operating system, and Psion have largely done an excellent job here.

New keystrokes

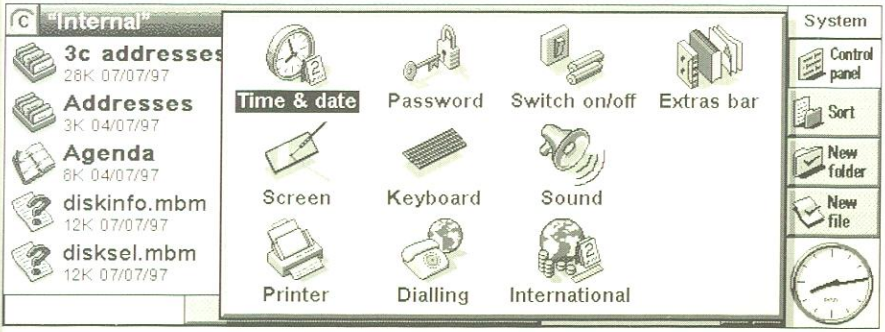
A number of keystroke conventions have been changed on the Series 5. The Series 3's eminently serviceable but unconventional 'Bring' command has been replaced by a PC/Macintosh style global 'clipboard', and the paste

Copy, cut and paste

command is now accessed by the industry standard <Ctrl><V> instead of Psion's incongruous <Psion><I>. While they were at it, they also put in the obligatory <Ctrl><Z> to undo the last action in almost every application, to complete the standard arsenal of PC-clipboard shortcuts. The last pre-production Series 5 I saw had a wonderful 99 levels of undo in every application, but sadly this has been reduced to a single level in the production model (presumably due to memory constraints), apart from SKETCH, which has five undos.

Making the machine feel familiar to PC users was of course no mistake on Psion's part, but the appearance of the GUI (Graphical User Interface) will feel equally comfortable for those used to the Apple Macintosh or other GUI-based computers. To help the transition from PCs the designers have finally ditched the <Psion> key in favour of a more universally recognisable <Ctrl> key. Although this appeared in the Series 3 models it now replaces most of the instances where the <Psion> key was previously used. Another newcomer to the keyboard is the <Fn> (Function) key, which gives access to all the special characters and other functions marked along the sloping front edge of selected keys. The revised layout takes a while to get used to, but generally works well.

The biggest downside is that most mathematical functions require you to press the <Fn> key in conjunction with some other, which is less convenient than the unshifted equivalents of the Series 3. This is only noticeable when entering lots of spreadsheet formulae, as the new



The Series 5 Control Panel, just like a 'grown up' computer...

Series 5 calculator is most easily accessed by tapping the screen with the pointing device (or a finger, of course).

The control panel items look after password settings, keyboard repeat rates, printer setup, dialling parameters and so on, almost all with more control and sophistication than on the Series 3. The only noticeable omissions are that there is no visual indication on the system screen when the link cable is connected, or when batteries are low. The battery status screen is more sophisticated though, and now gives a snapshot of current battery consumption.

The '5' does consume a few milliamps more power with the link disconnected but 'turned on', though this is effectively negligible in the grand scheme of things. One nuisance is that you still have to switch manually between 'cable' and 'infrared' connections whenever you want to beam data instead of 'PsiWin' it, which partly negates the convenience of having auto-sensing when the cable connection is used.

File transfer

Infrared data transfer works fine with irDA-compatible printers and between Series 5s, but will *not* work between a '5' and a Series 3c or Siena. This is apparently due to an incomplete implementation of the irDA standard on the earlier models, but in any case *none* of the file types are compatible between the two machines anyway. Like the 3c you can still only copy *single* files using infrared, as there is no feature to tag files or folders for transfer.

Series 3 and Siena owners can only 'upgrade' their data files by connecting to a PC via PsiWin, and performing an update procedure to convert them all into Series 5 format. This conversion is a one way street, and there's no way to convert the files back again—so if you want to exchange files with a pre-Series 5 colleague or friend then you're out of luck.

Needless to say that none of your existing software will work on the Series 5, though a number of programmers are busily working on S5 versions of their existing software.

Windows 95 or nothing...

More bad news for a lot of users is that connectivity is limited to a Windows 95 PC or nothing at the moment, though a Macintosh link is due within a few months. Psion are clearly expecting the vast majority of potential S5 buyers to be existing Windows 95 PC owners too, and their decision to bundle the link cable and a CD-ROM containing the Win95 software effectively leaves Windows 3.x and non-Windows users completely in the cold.

The intrepid operator can always resort to the usable VT100/TTY terminal emulation program built into the '5', but this is little consolation. On the bright

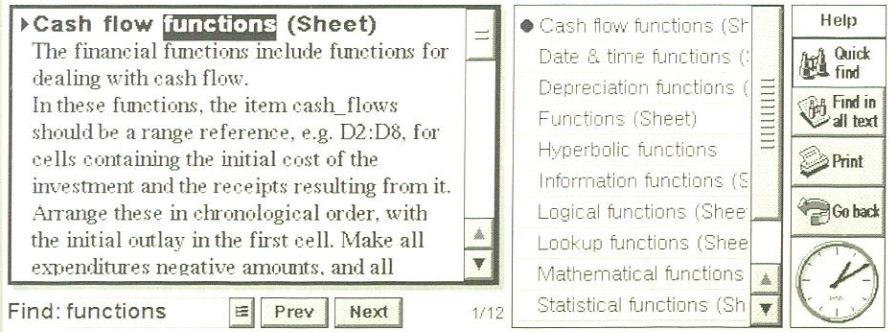
side, most people do at least have *some* access to a Windows 95 computer, and the PsiWin program works very well.

Documentation

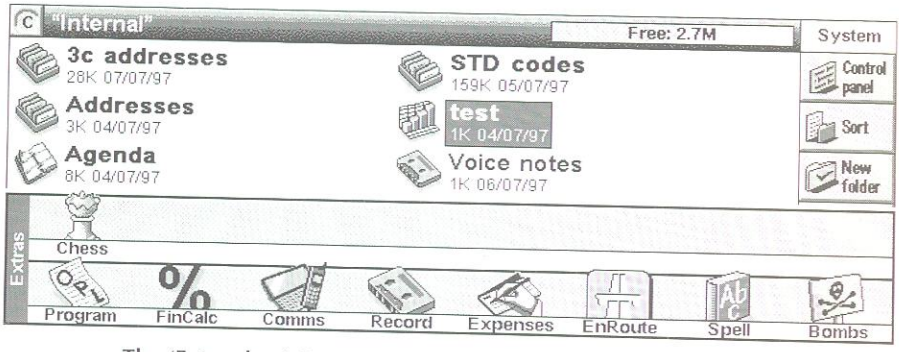
The printed instruction manual provided with the Series 5 follows in a similar vein to the Siena's. It is more attractively presented than Psion's earlier manuals, is written in a more approachable style, and is spiral bound to make it easier to refer to while using the machine. The bad news is that it is very incomplete, entirely omitting most of the more detailed aspects of the Series 5's use, and it provides very few examples to help get you started.

I was enormously annoyed by these omissions until I examined the 5's online help system, which is excellent. Pressing the new 'Fn' key and comma keys together brings up the help file, displayed in the new DATA application, and this gives flexible access to all the detailed information you are likely to need. The help system is *not* context sensitive, so you need to enter a few characters to describe what you are looking for: thus keying the word 'functions' into the 'find' window while in 'quick find' mode will bring up a list of all the help topics containing that word in their headings. For a more extensive search select the 'Find in all text' mode, and you will then find all occurrences of the selected text, anywhere in the entire help system. Once selected, you can use the 'Go back' button to jump back to where you were working, and the next time you invoke the help system it will go straight back to the page you were previously on.

Despite the good online help I still feel it inexcusable to omit a proper printed instruction manual from a £500 computer, and Psion don't even offer one as an extra. This leaves things in the hands of third-party vendors to produce an alternative, though sadly I've never yet seen a *truly* excellent non-Psion book about Psion computers.


Cash flow functions (Sheet)
The financial functions include functions for dealing with cash flow.
In these functions, the item cash_flows should be a range reference, e.g. D2:D8, for cells containing the initial cost of the investment and the receipts resulting from it. Arrange these in chronological order, with the initial outlay in the first cell. Make all expenditures negative amounts, and all
Find: functions
Prev
Next
1/12
Cash flow functions (Sh
Date & time functions (
Depreciation functions (
Functions (Sheet)
Hyperbolic functions
Information functions (S
Logical functions (Shee
Lookup functions (Shee
Mathematical functions
Statistical functions (Sh
Help
Quick find
Find in all text
Print
Go back

The Series 5's excellent new help engine



The 'Extras bar'. Pop-up access to all your add-on programs

Multitasking, auto installing

The '5' of course multitasks just like its predecessors, and the 'List open files' command from the system screen makes it easier to keep track of everything that's going on. I frequently had more than 20 programs and documents open or running simultaneously, and even then the machine showed no signs of complaint.

You no longer have to install software icons 'manually' into the system screen with the S5, and almost all commercial programs will install their files straight into the correct directories for you. Additional programs appear automatically in the 'Extras bar', which pops up as soon as you touch the right-most icon below the system screen. This keeps all programs no more than three taps away (one to get to the system screen, and another two to open the bar and select the program).

The extras bar will house up to four rows of eight icons, and if you exceed this it will simply show a scrollable list of all the extras under a 'more' icon at the end of the top row.

The extras bar is also used to access the built-in Spell checker/thesaurus, the scriptable terminal emulation program, the RECORD program, the OPL program editor, and a little 'Bombs' game—which is just like the 'Mines' game supplied with Microsoft Windows.

Summary

Overall I found the new style operating system very easy and pleasant to use. Apart from the absence of battery or link status the system screen gives a lot of information within the small available space.

Both new and existing Psion users should have no trouble getting used to the Series 5 software, and its elegant simplicity is one of the machine's biggest strengths.

Word

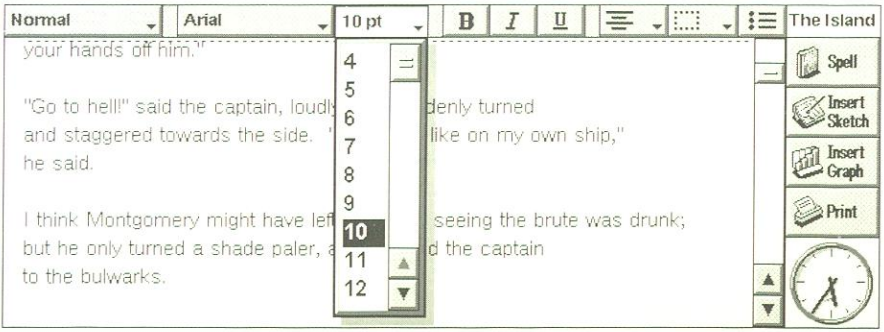
Although a lot of the menus and options are named differently to the Series 3 version of WORD, the general operation is similar, and those used to the S3 will have no trouble adjusting to the new version. As with most Series 5 programs, WORD is actually *easier* to learn than on the Series 3, partly because of the handy icons displayed on screen, and partly because the nested menu structure tends to group related commands together more logically than before.

The top toolbar (see screenshot below) gives one-tap access to text styles, font types, text (point) sizes, bold, italics, underline, text alignment (justification), a new facility to put border lines around text, and a handy 'bulleting' function. The toolbar down the side gives access to the spelling checker, printing and previewing options, and a quick route to inserting sketches or graphs into your word processed documents.

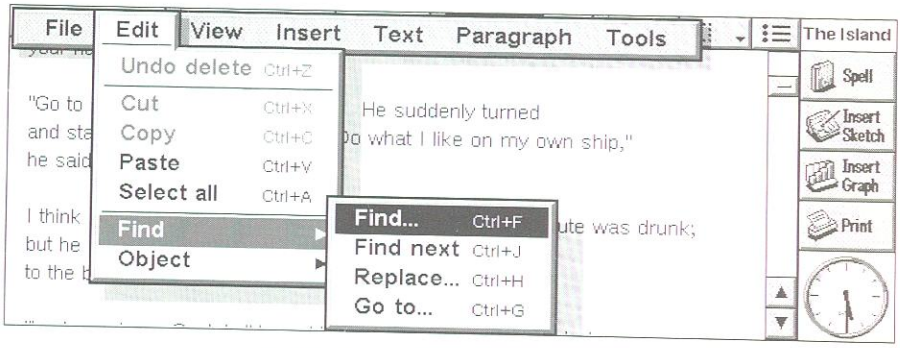
The art of embedding...

The Series 5's new ability to 'embed' WORD, SHEET, RECORD or SKETCH data into WORD, AGENDA or DATA files is immensely powerful, and is one of its chief benefits over the Series 3 range. You no longer have to curse being unable to put a table, graph, company logo or scanned signature into your documents, because now you can. In fact things are not limited to purely visual data, and you can equally well insert a voice recording into WORD documents, though this is generally of more use for AGENDA entries.

The press of a button will whisk you into a new SHEET or SKETCH document, where you can work on the object to be inserted into WORD. At this point you have access to all the features of the program in question, and when finished editing simply press the 'Done' button at the top right of the screen, and then drop back into the original WORD document within a second or two.



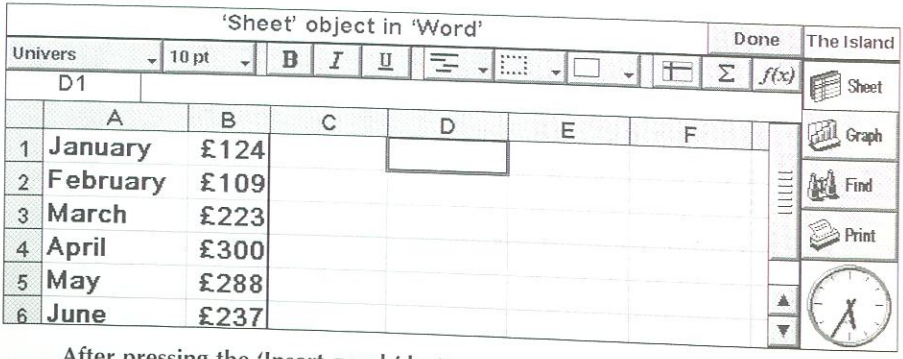
Toolbars to the top and to the right. Font menu shown 'pulled down'



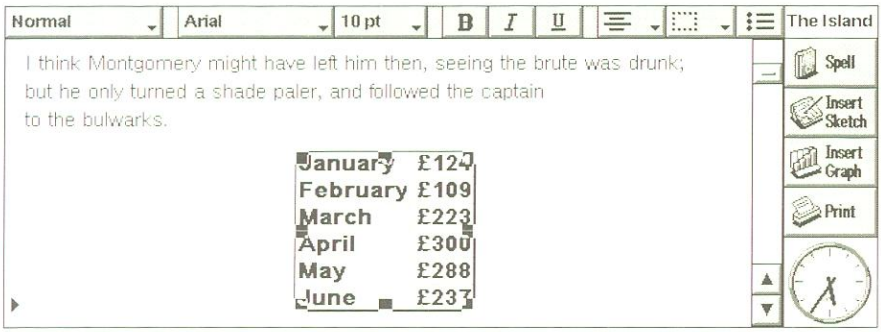
Different menus, and nested too!

The object you were editing will then appear at the cursor position, where you can freely scale it to a larger or smaller size (by dragging 'sizing handles' with the pen if you wish), crop it, and align it to the left, right or centre of the page.

All so-called 'embedded objects' appear accurately in your document and page previews, and print out beautifully. This new found freedom in document creation opens whole new areas for the Psion user: invoices, data entry forms, complex reports, newsletters, illustrated technical papers, financial reports and accounts, and lots more. One limitation when embedding is that you can't insert an *existing* WORD or SHEET document, only create a new one from scratch. This can be a real nuisance, as it prevents you from working on the various components of a composite document before piecing the whole thing together. For some reason you *can* merge in existing SKETCH or RECORD files, which confuses matters further. You can get around the limitation by copying your pre-existing WORD or SHEET file to the clipboard, and then pasting it back into the document to be



After pressing the 'Insert graph' button. Note the 'Done' box at the top



'Done' pressed, back in the WORD document. Handles can be dragged to resize

embedded. This is cumbersome, and you also lose some of the formatting of the pasted item, which then has to be reapplied.

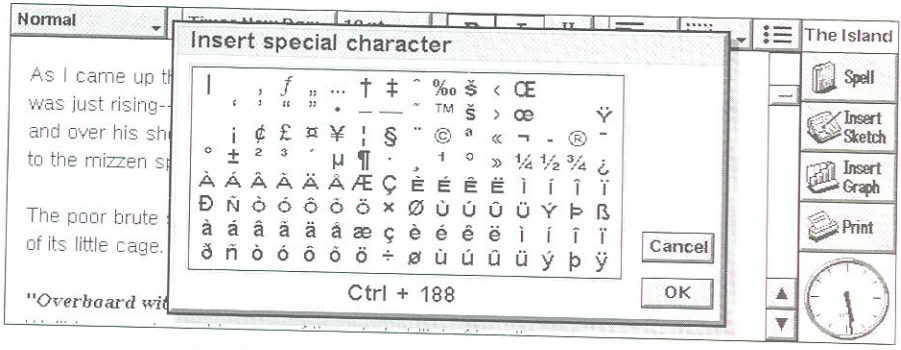
New features

Apart from all these fireworks, a few items of a more general word processing nature have also been added. You can put a rectangular border around any paragraph of text, choosing from a variety of line styles, two grey shades (plus black, of course), and very importantly you can adjust how far out the border stands from the text. You can also set the background 'colour' behind each paragraph, either with or without a border. The border feature is occasionally useful for emphasizing a block of text or creating fill-in boxes for forms, but it's a pity that you can't put a border around a selected box—it will only do entire lines or paragraphs.

Multiple columns of text in a WORD document are still not possible, nor can you accurately adjust the horizontal position of pictures/tables/graphs, but don't forget that this is a palmtop computer, and full desktop publishing power is just a little too much to ask.

Turning a series of paragraphs into a 'bulleted list' is now easily done, just by tapping an icon at the top of the screen. You can also choose which bullet character to use, how much to indent the paragraphs, and even whether the text should be in a shade of grey instead of black!

The Series 3a/3c version of WORD was already a very powerful application, and other enhancements are limited to more precise control of line spacings, the ability to colour any text in either of two shades of grey, and of course the true WYSIWYG capability to view unlimited font sizes and three typefaces accurately on screen. As with the other S5 applications you can toggle the various toolbars and scroll bar off for a less cluttered appearance, and this gives a nice 'clean screen' appearance like the Series 3. As



Easy insertion of special or accented characters

with all other applications, file sizes are now only limited by available storage space, so it's realistic to keep an entire novel in a single document if you wish.

Another nice touch is the new 'Special character' menu option, which pops up a list of all the special and accented characters that can be inserted into a document. Tapping on one of the characters makes the dialog box disappear, and the selected character is immediately pasted into the current cursor position.

Some glaring omissions

And now for the bad news. The Series 5 spelling checker is *hideously* slow. Scanning through a 1000 word document takes well over 2 minutes, as opposed to a mere 15 seconds for the Series 3a/3c. This may be a result of the document being 'paged' into memory, whereas the Series 3 kept the entire document loaded in memory at all times.

Secondly, the thesaurus cannot be accessed directly from within WORD. You can work around this by opening the Spell checker/thesaurus application separately and cutting and pasting the words between the two programs, but this is an untidy kludge, and again is a retrograde step from the Series 3 range.

The third strange omission is the lack of any outlining facility. I confess that I'm not an outline user myself, but some people swear by them and will find their absence a major drawback.

Fourthly, Psion's programmers have also ripped out the facility to create pre-formatted document templates that can easily be opened when a new document is created. You can satisfactorily get around this by saving skeleton documents as 'read-only' in the system screen to prevent them from being over-written. I found this different way of working to be a reasonable alternative to templates, especially once I put all the templates within their own 'Template' folder. Using this technique

it's easy to create templates for other applications such as SHEET and DATA too, but it still begs the question as to why Psion removed this useful feature.

The lack of an outlining facility and templates can both be got around (at least partially) by other means, but why remove these features when 3a/3c/Siena users have lived with them for years? The inability to use the thesaurus directly within WORD is an annoyance for people writing serious quantities of prose on their Psions—exactly the kind of people who will be attracted to the Series 5's superior keyboard.

Export headaches

Just as SHEET no longer allows you to save documents into WK1, WKS or DIF format, WORD no longer allows export into RTF (Rich Text Format), though raw ASCII text format is allowed. This is irrelevant to PsiWin users, but users of other computer types are now robbed of any means to get properly formatted text into or out of their Series 5.

The last word

For many potential Series 5 owners WORD is the most significant single application, and despite the few missing features it's important to appreciate that the 5 is still a very accomplished word-smith's companion. Its strength starts with the wonderful new keyboard, but the ability to use the same formatting precision, style sheets, tabs, indents, bullets, word count, spell checking, embedding, etc. that you would use on the average PC-based word processor is a powerful lure.

In comparison to Windows CE's horribly under-featured 'Pocket Word', the Series 5's word processor is on an entirely different planet, and it is now a serious alternative to a laptop computer for journalists or anyone else who needs to write large amounts of text while on the move. I drafted all of this issue's Series 5 articles on the 5 itself, and can vouch that typing on it for long periods is both comfortable and practical. Of course it's not quite as easy as a full-sized keyboard, and although I've been typing on it with about six fingers, it's not as good as *real* touch typing with all ten digits. The important thing is that it's a good substitute though, and it really beats lugging a laptop around. Having spent many years travelling around the world with various laptop computers, even relatively lightweight ones, I can say that I would rather take a Series 5 for at least 90% of my work.

Freedom from battery constraints, slow booting times and stretched arm muscles are powerful influences to the creative process, and the relatively tiny Series 5 scores very highly in these areas. From several weeks of hard use I can personally vouch that aside from the less-than-perfect screen readability the '5' is otherwise a most excellent writer's tool.

Sheet

Just like with WORD, the Series 5's new spreadsheet makes use of toolbars to keep the program's main features easily accessible. This makes life easier for the novice user by giving plenty of visual clues to the application's key functions.

Psion have made many improvements in this new version of SHEET, partly by adding new features, but also in the way spreadsheet data is presented. As with WORD on the Series 5, it's striking how much of the power of full-sized PC software has been squeezed into these relatively tiny programs. SHEET now sports the same top toolbar as WORD, so you can change fonts, alignment, cell shading and borders at the tap of a button. The toolbar down the right side toggles between sheet and graph modes, and gives access to text searching and printing options.

Autosum at last

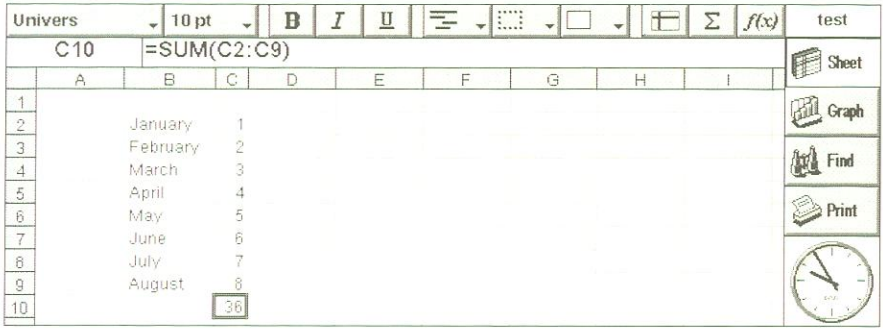
One of the most obvious enhancements to SHEET is the addition of an 'autosum' feature. Putting the cursor onto an empty cell directly below or to the right of a row or column of numbers and pressing the new 'Σ' button on the top toolbar will automatically insert the '=SUM()' function and apply it to the correct cells. In other words, it will automatically add all the numbers together and display the total. Considering that 90% of spreadsheet formulae are simple totals this is a *major* time saver, and one that appears in all desktop spreadsheets.

Functions, functions

SHEET on the S5 is literally blistering with mathematical functions: over one hundred of them. These include almost all of those present on the Series 3, plus a few new ones. The new additions include a number of lookup and range handling functions, some of which help to mimic the old database and lookup table facilities from the Series 3 spreadsheet that Psion have chosen to leave out of the S5 (see later in the article).

There are also a few extra trigonometric functions, a factorial function, some logical operators, a set of information functions that return the precise contents of any cell (whether it contains a number, text, certain error messages, logical states, etc.), and a mixed bag of others. Note that one or two functions have changed their names, so anyone who uses a lot of the more esoteric ones may like to browse through the online help for further details.

I found the lack of detail in the Series 5 documentation most annoying when getting to grips with SHEET. There is no function list within the manual, so you are forced to scroll through the many pages of online help to find out what SHEET can do. The only other option is to print out all the help text onto paper, but this is inconvenient.



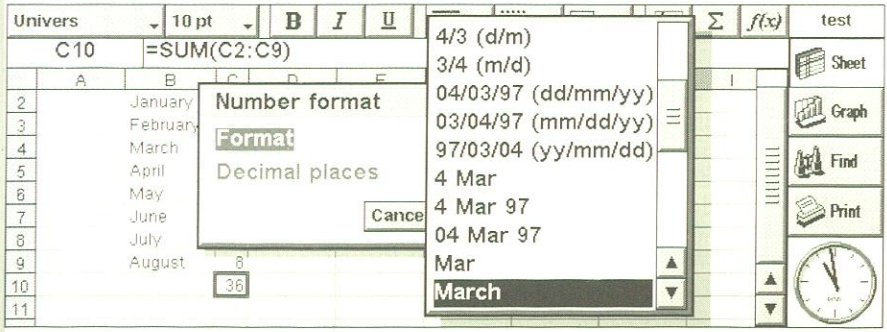
More toolbars, and autosum (see '∑' button on top toolbar)

Making a date

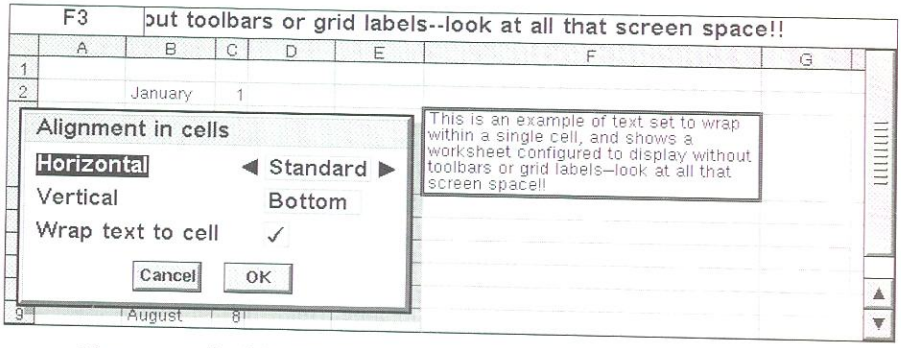
Date handling now works the way it always *should* have, removing the need to use the old Series 3 SHEET's crude workarounds. You can now choose from more than 20 date and time formats, and can input dates in the simple form of '31/12/97' or '31 12 97' (both without the quotation marks). This alone makes working with SHEET far easier, and is an improvement that is long overdue.

Cell control

There is now far more control over each individual cell's appearance: it's a simple matter to shade text or backgrounds and add numerous thick-lined, thin-lined, dotted or dashed borders. Cell heights can be controlled in the same way as column widths, and you can drag things to the desired size using the pen, or by entering values directly into dialog boxes. Handy commands to reset these values back to their defaults are provided if you make a mistake, and encourage experimentation.



Just a small section of the many new date formats available


F3
out toolbars or grid labels--look at all that screen space!!
Alignment in cells
Horizontal
Standard
Vertical
Bottom
Wrap text to cell
Cancel
OK
This is an example of text set to wrap within a single cell, and shows a worksheet configured to display without toolbars or grid labels—look at all that screen space!!
January
August

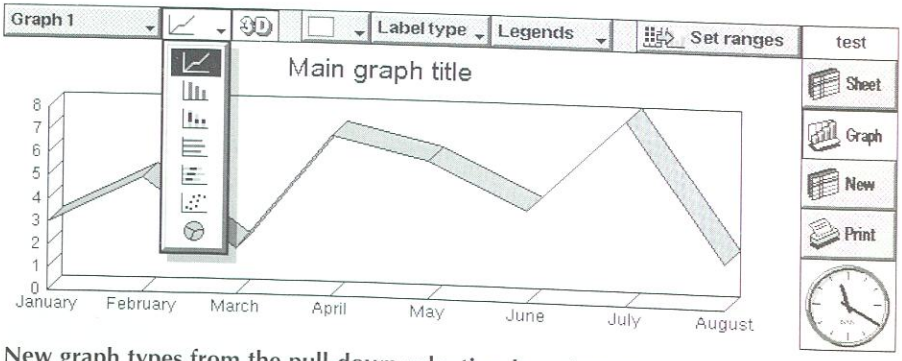
New, more flexible cell alignment, and multiple lines in a single cell

You can now force multiple lines of text to wrap within a single cell, and control text alignment not only left to right, but top to bottom as well (see screenshot above).

Cell protection has been changed so it's necessary to specifically *remove* protection from any cells you wish to be able to change. This is less flexible than the Series 3 solution of allowing cell groups to be either protected or unprotected at will, but at least presents the novice user with a fully protected sheet by default, which may be safer.

Graphing

Apart from being able to tap on the various elements of a graph in order to change settings, the program now adds horizontal bar graphs and ribbon graphs (effectively 3D line graphs) to its previous selections, and simplifies the process of changing or adding to the ranges you intend to plot. The whole business has been simplified by displaying many of the common options on the main screen, and you can now print out graphs in their full glory.



New graph types from the pull-down selection box, including 3-D 'ribbon' graphs

General tidying

Other small improvements include more configurable insertion of cell rows and columns, with a choice of the number of rows/columns to insert. You can insert forced page breaks into worksheets to give more control of printed output, or of course embed worksheets into WORD documents instead.

Pen control

The pen is enormously useful in SHEET. A quick stab of the pointer will select a cell without recourse to the arrow keys, and you can drag the pointer across the screen to select whole rectangular ranges at a stroke. When switching into graph mode a tap on almost any part of the screen will open dialogs to change the settings for whatever range, title or cell you pointed at. Spreadsheets are undoubtedly easier to navigate with the addition of a pen, and S5's SHEET is a pleasure to work with.

The bits they left out...

As with WORD, Psion have mysteriously left out a few items of 3a/3c functionality. Firstly the database and lookup table menu options have disappeared. These were almost certainly the least-used bits of SHEET, and I personally found them cumbersome. But as with the outlining feature in WORD, some people use these things daily, and I believe it was a mistake to leave them out. Some new lookup functions have been added to the Series 5's SHEET, but these are even less straightforward to use than the old method.

The other oddity in Series 5 SHEET is that cell and range naming doesn't work fully. You can still apply names to any cell(s), but the name doesn't appear in either the formula bar or in calculations that refer to that cell or range. You can type in the range name in place of the cell reference (like '=SUM(items)' in place of '=SUM(B2:B5)', but you either need to memorize the range names, or put the names into adjacent cells for reference. This is just crazy, and makes the whole process so clumsy as to be virtually useless. This makes no sense, particularly as worksheets can now be as large as you like, and range naming is normally such an effective way of documenting a big worksheet.

Finally, ranges of spreadsheet cells can no longer be sorted into alphabetical order. Again this was a strange thing to leave out, and can be a real nuisance.

Overall

This is an accomplished spreadsheet program that would have put desktop computer equivalents to shame only a few years ago. Although there *are* some omissions they're less irksome than the ones in WORD, and SHEET's interface keeps up the S5's impressive standard.

Data

DATA on the Series 3 machines was always a lightweight when compared to PC-based databases, but it also had the benefits of flexibility and speed. It was the work of only a few seconds to configure it to keep a list of friends, a stamp collection or your favourite films.

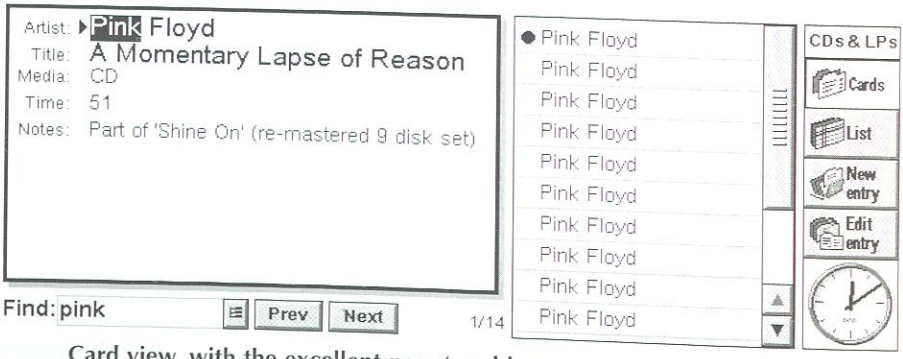
The main weaknesses were the lack of a 'list' view (until the arrival of the 3c and Siena), or a way to define field types other than plain text. You couldn't tell DATA that a 'Purchase date' field should always contain a valid date, and have it refuse an entry that didn't meet this requirement. You couldn't set up a CD and LP database and select a PC-like 'radio button' to choose whether an entry was for a CD or an LP.

Keep it simple

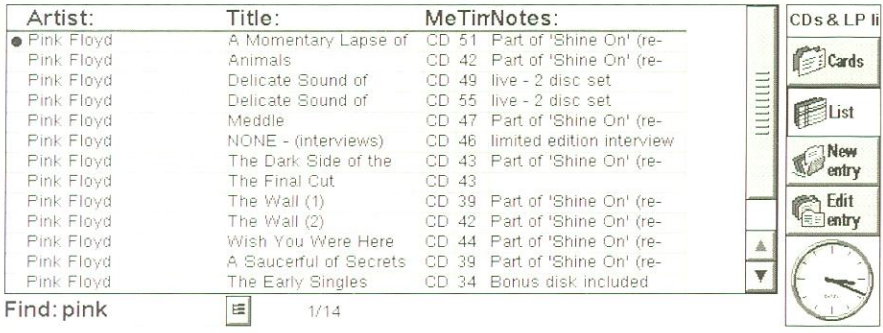
Psion sensibly haven't tried to add too much additional complexity to the Series 5 DATA application; they've just beefed up their existing recipe a little while keeping it fast and easy to use.

The simple card-index metaphor is still used to view single records (entries), and the phone directory-like 'list' view is used to show several records at a time. The card view has been usefully improved by adding an optional 'card browser' window on the right side of the screen. This forms a mini 'list view' when the database is unsorted, and when you have applied a 'find' criteria it shows a list of records that meet that criteria. In other words, looking up everyone called 'John' in an address database will show a scrollable list of all the Johns. The currently selected record is denoted by a black spot in the browser view, and you can move up or down the list and press <Enter> to select the card view for a chosen record.

List view works much like on the 3c, Siena or any of the add-on database programs for the Series 3 range. It shows the same data as the card browser, but displays as many fields as can be



Card view, with the excellent new 'card browser' window to the right


Artist:
Title:
MeTim
Notes:
Pink Floyd A Momentary Lapse of CD 51 Part of 'Shine On' (re-
Pink Floyd Animals CD 42 Part of 'Shine On' (re-
Pink Floyd Delicate Sound of CD 49 live - 2 disc set
Pink Floyd Delicate Sound of CD 55 live - 2 disc set
Pink Floyd Meddle CD 47 Part of 'Shine On' (re-
Pink Floyd NONE - (interviews) CD 46 limited edition interview
Pink Floyd The Dark Side of the CD 43 Part of 'Shine On' (re-
Pink Floyd The Final Cut CD 43
Pink Floyd The Wall (1) CD 39 Part of 'Shine On' (re-
Pink Floyd The Wall (2) CD 42 Part of 'Shine On' (re-
Pink Floyd Wish You Were Here CD 44 Part of 'Shine On' (re-
Pink Floyd A Saucerful of Secrets CD 39 Part of 'Shine On' (re-
Pink Floyd The Early Singles CD 34 Bonus disk included
Find: pink
1/14
CDs & LP li
Cards
List
New entry
Edit entry

List view—just like the 3c and Siena

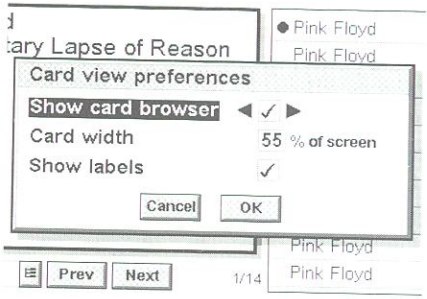
squeezed in, instead of just the first one. You can customize the appearance by zooming (of course), adjusting column widths and choosing which fields (headings) to include.

A worthwhile improvement to Series 5 DATA is that you can now adjust font types, sizes and emphases for each field in the card view. That means you can make a person's name appear in a large and easy to read typeface, and perhaps have their fax number appear in a smaller type, and in italics. This makes multi-line entries easier to read.

Qualify your data

DATA now includes some limited checking aids when defining field labels. For each line of a database you can set any field to accept only text entries, numbers within a specified range (and to any number of decimal places), dates, a yes/no check box, and a memo field for text entries with *no* length limit. When entering into a 'date' field you can even press the <Tab> key to bring up the standard Psion calendar, from which it's easy to find a specific date. These small improvements help to

Data entry mode. Enter text, change fonts, or embed a picture, text or sound

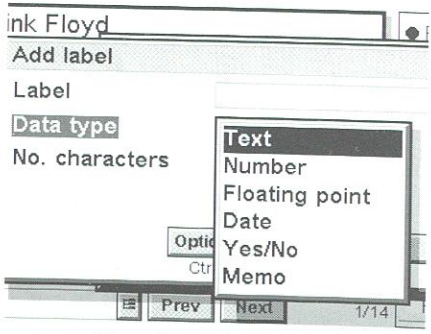


Configuring the card browser

avoid mis-keying of important data, and are at least a small step towards making the program into a more powerful data entry tool.

Speed and power

DATA on the Series 5 is considerably faster than the 3a/3: it opened a 5300 record database of telephone codes/cities in just over 5 seconds, found the last record in three or four seconds, and found a set of 10 records to match a 'find' criteria in about the same time.



Choosing a data type...

Being able to embed text, spreadsheets, sketches or sounds into any DATA entry means that you can attach large text notes to any field, reference tables of information, a map attached to someone's address record—or at the extreme, even sleeve shots and sound samples from your CD collection!

I'm pleased that Series 5 DATA is still a fast and flexible general purpose tool—that way even casual users will still use it for all their database requirements. It's all too common for users to buy a PC-based database program to do the same job, but give up on it after finding that it's just too time consuming and difficult to set the whole thing up. Even the computer novice will have no such problems with DATA.

It's a pity that there's still no password protection facility for DATA files, so it's important to be careful when storing sensitive information. A database is really the most natural place to store credit card numbers, bank account details, etc., so it's strange that Psion seem resolved to leave out DATA protection, but offer it in WORD and SHEET.

For users with more ambitious database requirements the time is now ripe for a *really* powerful program to appear from one of the third-party software houses. The extra horsepower of the Series 5 should make products like *JBData* and *DataView Pro* well worth waiting for...

Agenda

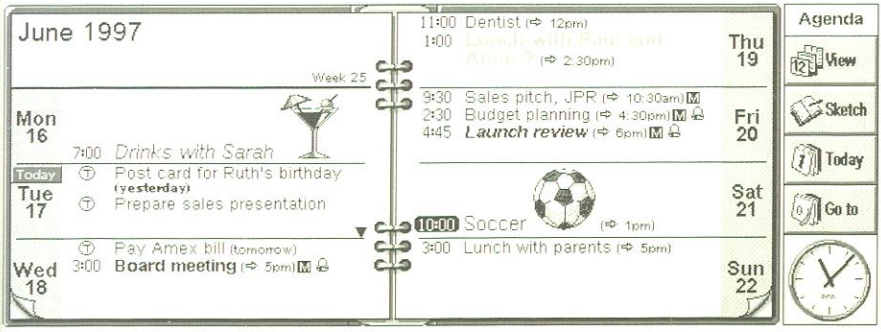
The Series 5 AGENDA will be the most familiar looking application to existing 3a/3c users. The five main views (Day, Week, Year, Anniversary and To-do) all look very similar to before, and many of the keyboard shortcuts are unchanged. Of course, you now have to press the <Ctrl> key in place of the <Psion> key, but it's in a similar place on the keyboard, so is almost an automatic transition for veteran Psion users.

New flexibility

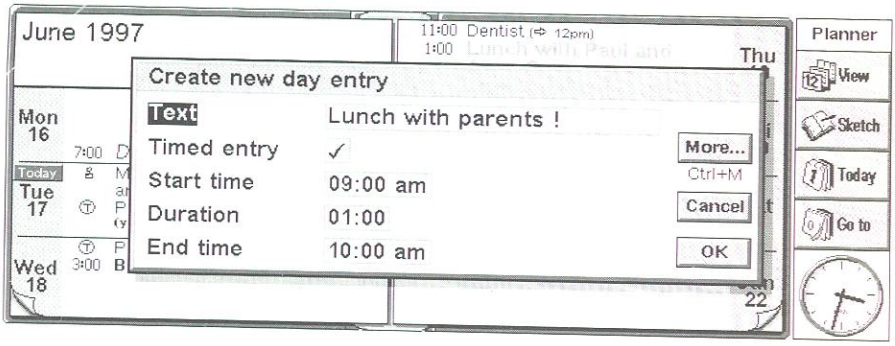
The biggest practical improvement of the S5 AGENDA is the ability to insert entire WORD, SKETCH or RECORD files into entries. You can't put in a SHEET file directly, but can embed a WORD document instead, and in turn embed a spreadsheet into *that*.

The ability to embed unlimited sized WORD documents removes the old 3000 word limit on attached memos on the Series 3a/3c, so there's now complete free rein. Another useful feature is the new 'Event' entry category. Together with 'day entries', 'to-dos' and 'anniversaries' this allows all activity types to be handled satisfactorily. Whereas 'day entries' are generally set to occupy a given time slot, 'events' simply mark a notable occasion that spans one or more days. The entry will appear at the top of each day, with a tiny flag icon beside it to denote that it is an untimed event reminder. One annoying retrograde step is that although there are still nine different priorities for to-do entries, you can't control *which* priority levels show through into the other views—it's now all or nothing.

Typing an AGENDA entry will pop up a new entry dialog box from which to access all the settings associated with the entry, and it's easy to specify the duration of any event in minutes, hours, or even days. The Series 3's classic 'bug' of being unable to handle entries spanning midnight has thankfully been exorcised, and the flexibility of the S5



Embed pictures, spreadsheets, entire WORD documents, and even voice notes

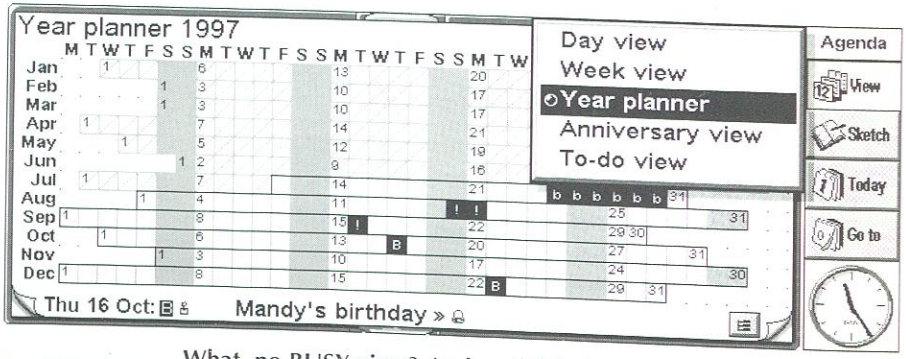


The new entry dialog box

AGENDA now does it considerable credit.

For even more flexibility entries can still be displayed as 'crossed out' rather than deleting them as they are completed, and tentative entries can appear in grey text until such time that they become firm events. Synchronising to *Lotus Organiser* and *Microsoft Schedule+* has been improved over earlier AGENDAs, though linking to *Microsoft Outlook* has to be done using a separate shareware program (see page 10). You can choose which entry types to synch with a PC-based diary, and which ones you prefer to remain personal—these will not get copied across, thereby preserving your privacy.

Some of the AGENDA functions from the Series 3 have had their appearance polished a little on the '5'. Pressing the <Tab> key still brings up a single month calendar on screen, and subsequent presses cycle through three-month and twelve-month calendars. The calendars now appear as 'pages' with upturned corners, and tapping on the corners moves backwards or forwards in suit-



What, no BUSY view? And no LIST view either...

able date increments. Tap-able buttons allow even quicker cycling through the views, and tapping on a date sends you instantly to that day. Throughout the Series 5 applications you are not forced to use pen input, as most of the old keyboard shortcuts still work, together with the usual methods of scrolling with the cursor keys.

Many of the overly complicated Series 3 preferences options have been simplified, largely without reducing functionality. The whole program feels easier to use, partly because of the new operating system's improved icon 'toolbars' and other visual clues, and partly because of the more logical 'nested' menu structure.

Missing views

One area where the functionality has sadly been reduced is the lack of the Series 3c's 'Busy' view. This was a handy display of all filled time slots for a four-week period, and the removal of this effective 'month view' is a pity. In truth many parts of the Series 5 development were well underway before the 3c was even released, so it's likely that the Series 5 AGENDA program code was largely completed before anyone even thought of adding it to the 3c!

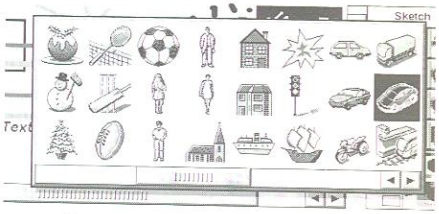
At first glance the Series 3's 'List' view seems to be missing too, but it has actually been replaced by something more flexible. The new 'Find' command allows you to enter any search criteria for entry types to examine, and these are then displayed in a list similar to the dedicated Series 3 view of the same name. Leave all the entry criteria blank and the search operation will find *all* your entries, displaying them neatly in chronological order—just like the old list view.

Overall, I find the Series 5 AGENDA application snappier to use than the Series 3 counterpart, and the 'leaner and meaner' interface makes it easier for the beginner to get to grips with.

Conclusions

AGENDA still lacks the ability to select more than one entry at a time for moving *en masse*, and uncompleted day entries still don't get carried forward to the current day. If Psion had managed to implement drag-and-drop on the Series 5 it would have been quick and easy to simply slide events from one date to another, and this was a missed opportunity. On the whole though it is a powerful and well rounded diary program that should keep track of the most complicated personal schedule with consummate ease. Transferring diaries between disparate programs on different computers always seems to be a fraught process, and predictably this is perhaps AGENDA's weakest point. Let's hope that someone compiles suitable synchronisation software for other non PC-based diary programs in the future.

Sketch



Clipart on a palmtop computer!

This is a very basic set of sketching tools, and is *not* intended for complex drawings. It's just fine for inserting a map of directions into someone's address entry, importing a logo into a WORD document as a company letterhead, and inserting a signature into documents.

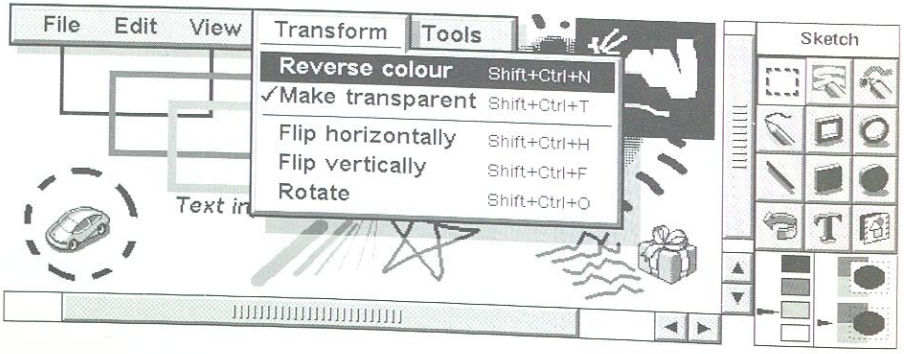
The tools available allow you to create straight and freehand lines, and filled or 'hollow' squares, rectangles, circles and ellipses. There is also a 'spray can' tool, an eraser, a text input tool, and even 72 pieces of pre-drawn clipart—though sadly you can't add to this. The clipart *looks* very impressive, but the novelty of inserting a picture of a cocktail glass into the AGENDA whenever you plan a party will soon wear off.

Drawings are not limited by the size of the Psion's screen, and can be set up to full A4. The on-screen window can also be zoomed up to the point where you can edit single pixels, but it won't zoom *down* from the default size, so it may be necessary to use the Series 5's new graphic print preview mode to get an overview of a large drawing you are working on.

SKETCH is a bitmap-based program, so it's impossible to pick out and move or resize an individual item once it's deselected, though you can select a complete area with a rectangular 'marquee' box and move it, flip it or rotate it in 90 degree increments.

Even if you don't use SKETCH very often, it's a great way to keep small (and not-so-small) children happy. Doodling around the screen is a source of great amusement, and you can even use it without the pen—in a sort of 'Etch-a-Sketch' mode.

SKETCH isn't Psion's answer to *CorelDRAW!* or *Adobe Illustrator*, but it is simple, useful and fun!



Time and World

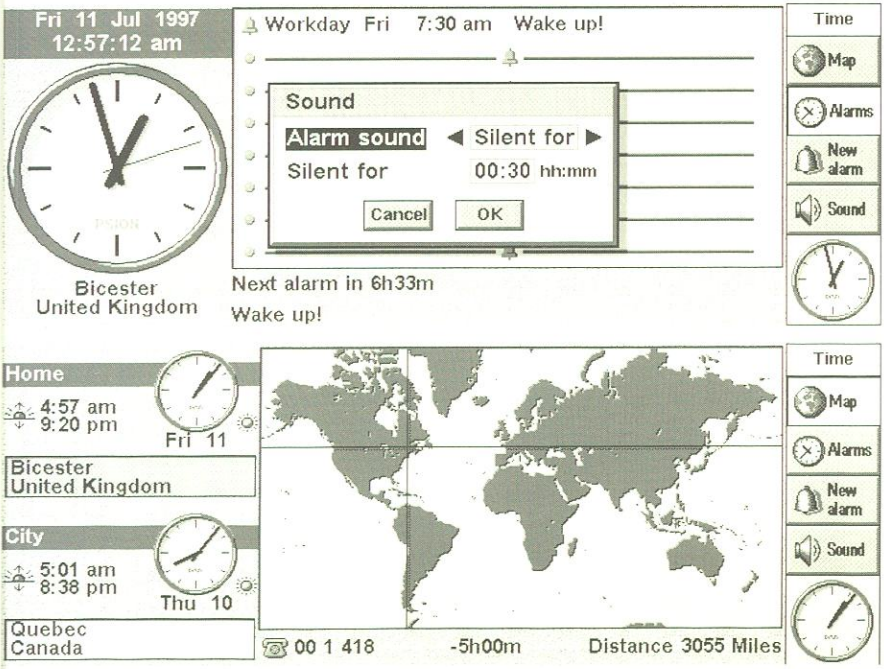
TIME and WORLD have now been merged into a single application. They both deal primarily with the same commodity—*time*—so there is plenty of logic in this.

Apart from a handsome 3D clock display, TIME's only new feature is the ability to silence all alarms for a defined period. At last you can stop your Psion 'going off' in an important meeting without having to switch *all* sounds off—which avoids getting up late the next morning because you forgot to switch the sound on again!

Two great new hardware features are the LED on the front of the outer casing that flashes when an alarm is going off (great when you're in that meeting), and the ability to 'snooze' an alarm by pressing the audio 'stop' button on the case. TIME offers eight alarms which can be configured as daily, weekly, weekdays only, etc.

WORLD now puts a cross-hairs over the currently selected city to help locate it. The cross-hairs also 'snap' to the nearest city whenever you tap on an area of the map, but this is of little more than gimmick value.

WORLD still gives location-sensitive dialling codes and sunrise/sunset times for any city in its internal database, and you can add any number of extra cities and countries yourself.



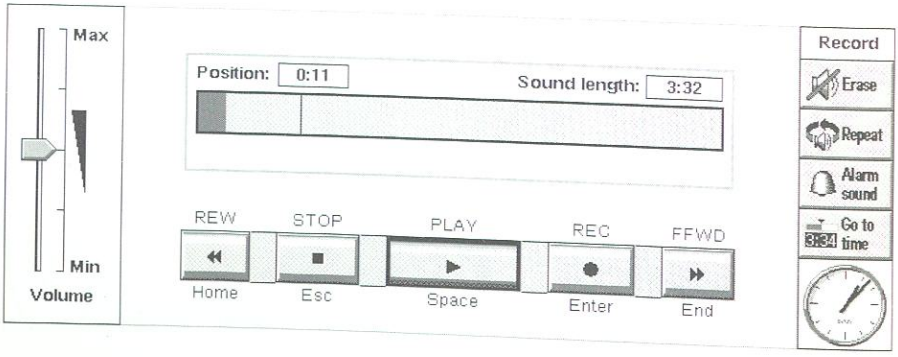
Record

Let's face it—until now the built-in RECORD feature in Psion computers has been virtually useless. Unless you felt the need to be woken by a recording of your dog barking or the theme music to *Hawaii-Five-O* there was no use for it.

Not only can you start and stop a recording with the external audio buttons, but you can play back recordings too—all without even opening the Series 5 to switch it on. With the casing closed simply press and release the external 'record' button to open up the RECORD application. Whenever you subsequently hold down the button the machine will record until the button is released. If the RECORD application was already running in either the foreground or background you don't even have to do the first press to activate it—record mode will always be ready to run. Subsequent recordings will be appended to the current file, so there's no need to worry about accidentally erasing previous notes.

Selecting RECORD from the Extras bar (there's no dedicated icon for it below the screen) will pop up a control screen from where you can adjust playback volume, play, record, erase and otherwise move around a recording. Tapping anywhere on the horizontal bar (see screenshot below) will move the 'cursor' to that point in the recording, from where you can replay from that point *onwards*—it's not possible to play a single section within the file.

The built-in electret microphone is quite sensitive, and thanks to the Psion's true multi-tasking ability you can sit in a meeting with the whole thing recording in the background while you're busily typing notes at the keyboard. It's no longer necessary to specify the recording time in advance—the Series 5 just stops when it runs out of memory space. This isn't the problem you might imagine, as a new compression algorithm allows a full 4 minutes of recording to be squeezed into each megabyte—buy a 10Mb CF card and store an average LP recording in full!



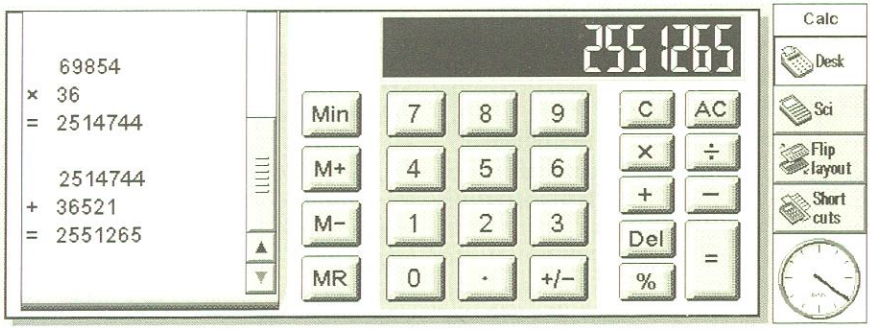
Calc

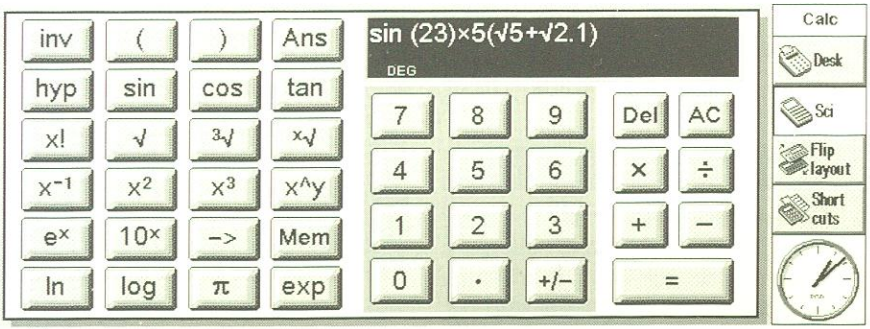
Just like the 3c CALC it has two modes. 'Desk' mode is a basic four function calculator with one memory, percentage function and a 'till roll' style display that scrolls the most recent calculations. 'Scientific' mode has 26 memories (assignable as A-Z), and the usual array of trig functions, roots and powers, logs, reciprocals, factorials, etc.

The star attraction is the ability to actually *press* the on-screen buttons like a real calculator. The buttons appear to 'push in' when pressed—a slick 3D touch. Both calculators are straightforward to use, as almost every available function appears as a 'button' on screen.

What you see is really what you get in this case, but it's also *all* you get. You can no longer call OPL functions in CALC, so you can't write custom functions, and neither mode allows any programming facility.

Scientific mode displays full calculations rather than just the last expression you entered, which makes things easier to follow. You can also set the calculators for left-handed use by flipping the numeric entry pad. The desk calculator displays to 12 digit resolution, and the scientific version will accept input numbers up to an amazing 100 digits in length, though it will always resolve anything above 10 digits into scientific notation.





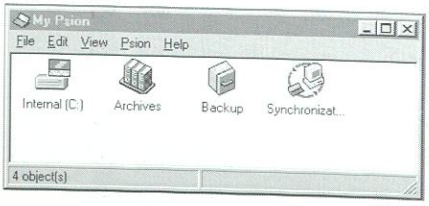
PsiWin

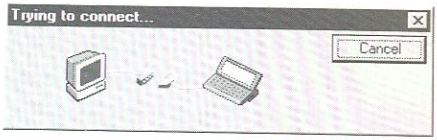
In a departure from Psion's norm, the Series 5 now *includes* the software and hardware needed to make the connection to a PC, at no extra cost. Along with the cable you'll find *PsiWin 2.0* on CD ROM. As mentioned elsewhere, if you don't have access to a PC running *Windows 95* or *Windows NT4* there's no way to fully connect to another desktop computer. PsiWin versions 1.0 and 1.1 *do* work for simple backup, restore and file transfer operations, but file conversion is not supported.

PsiWin installation is very straightforward. Integration into Windows 95 is very smooth, and once installed, a new icon, 'My Computer', appears on your desktop. This new way of working bears little resemblance to the old PsiWin, but is much better integrated into Windows 95. Your Psion C: and D: drives appear as ordinary PC drives, and commands like copy, move, rename and delete are carried out in the drag-n-drop *Windows Explorer* style you would expect.

Auto-Dock

One of Windows CE's few selling points is its PC connectivity, and Psion have

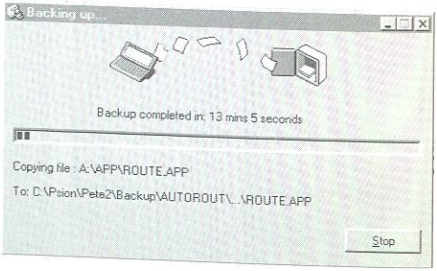




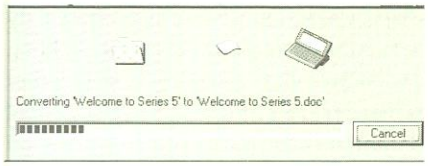
Making the connection...

clearly made an effort to make PsiWin at least as friendly and flexible. Auto-dock reportedly makes connection to your PC easier than before—it's a small driver that loads with Windows, and automatically connects to your Psion when it detects that a machine is plugged in. Once connected, routine tasks such as backups can be automated, and PsiWin now automatically closes all open programs and documents before performing a backup, compares the files that have changed since the last one, backs up the changed files, then re-opens all the items it had previously closed. AGENDA files can also be auto-synchronized with PC-based PIMs.

A squiggly-icon appears on the Windows taskbar to indicate the state of connection, and a right-hand mouse click will bring up a settings menu. A word of warning however: Auto-dock seems to cause conflicts with other



Fast and easy backups



Upgrading from a Series 3

hardware under some circumstances. I've discovered that it's almost impossible to get my modem to work with Auto-dock switched on. This clearly has something to do with PsiWin's polling of the PC serial ports, and so disabling or suspending Auto-dock may be advisable if you have other devices attached.

Upgrading to a Series 5

Existing Psion users will be keen to get all of their data onto the new machine, and PsiWin makes this task quite easy. One of the program icons gives the option to upgrade Series 3/3a/3c or Siena files to the new Series 5 formats.

This is a three-step operation. First you are prompted to connect your older machine, then baud rates and machine type are detected and the files are transferred to the PC. The second stage is file conversion, with the third step being the download onto the Series 5. I found this procedure remarkably painless.

File conversion

Converting documents so that they can be exchanged with non-Psion computers is much the same as before. All of the original PsiWin conversion formats are available: plus *Access 95*, *Works 4*, *Quattro Pro 7.0* and *WordPerfect 7.0*. You can synchronize Psion AGENDA files with *Lotus Organiser 2.1*, *3.1* and *97*, as well as *Schedule+ 7* and *7a*. Support for *Microsoft Outlook* is not yet available, although Outlook will import Schedule+ data, and a new shareware PC-based conversion program is available (see page 10).

Extras

Psion Backup and *Psion Print* are still part of the suite, and apart from a minor facelift things are much as before. The CD includes a few extras, including a PC screensaver, the OPL manual in Microsoft Word format, a scrolling demo of the Series 5's capabilities, plus two file conversion utilities. BMCONV, converts between the PC bitmap file format (BMP) and the Series 5 picture file format (MBM), whilst WVECONV converts between the Series 3a/3c sound file format (WVE) and the new Series 5 sound file format. Hopefully these DOS-based convertors will be replaced by some proper PsiWin conversion filters in the near future.

All in all, PsiWin has matured into an excellent product, and Windows 95 users will be impressed by its seamless integration into Win95. For the moment, non-95'ers will have to sit and wait...

Summary

Good design

From a hardware standpoint, the Series 5 is mostly excellent. The design is something of an engineering coup, with the best possible keyboard squeezed into the small available space. The design and positioning of the recording controls are good, and the Series 5 enjoys Psion's usual desirability factor and elegance. The pointer also works exceptionally well with this machine, and the software is well optimized for both pointer and keyboard input.

Hardware horrors

On the negative side, after less than a month of use I found that the layer of grey 'paint' along the thin front edge of the keyboard plane was already beginning to rub off, depositing little grey flakes onto my desk and fingers. Psion have also *still* failed to address the problem of the legends wearing off the keytops. I was horrified to find that again after only a few weeks of use the letters on my 'Ctrl' key were already fading, and bits of the word 'Shift' on the right hand shift key had already rubbed off. Unless Psion address these problems very quickly they will have a lot of dissatisfied customers with machines that look shabby after only a short period of quite normal usage.

The screen contrast and high reflectivity is a disappointment in most lighting conditions, but is on a par with other screens of the same type. Let's hope that technology developments will soon bring either a low-power colour screen or a greyscale one that's easier to read.

Software

Most of the built-in applications have several important new features, plus the inclusion of full WYSIWYG, a basic drawing package, superb online help and an easy to use filing system.

Despite improvements, Psion have also missed some opportunities with the '5', though much of this must surely be a result of their rush to get it in the shops before Windows CE machines took hold. It's important to keep in perspective that the current CE machines are still hopelessly outgunned by the 5, but the fact remains that a small number of important features have either been left out or poorly implemented.

Connectivity

Internet connectivity is an important consideration for some palmtop users nowadays, and in this area the Series 5 promises much—as soon as the new FREE PsiMail Internet arrives...

The biggest criticism of the Series 5 has to be in the area of non-Windows 95 connectivity. For the vast majority of

computer users this is no problem. Most people are using *Win95* these days, but for those with either an earlier version of Windows or any non-Windows computer *that they regularly need to transfer files with*, the Series 5 (as with the Windows CE machines) cannot be seriously recommended at this time. This may change if someone gets around to writing *PsiWin* lookalikes for other computer platforms, but from past experience this is unlikely. Strangely the soon-to-be-released *PsiMac* for the Series 3 will offer full file conversion utilities for Macintosh computers, but the Series 5 version will only allow simple backup and restore.

Psion have compounded the file transfer problem by removing almost all useful import/export filters from the machine itself, leaving only raw ASCII text import/export in WORD, and delimited text in DATA. This means that you can't even limp along with a basic terminal mode file transfer, because there is no way to process the properly formatted files once you get them onto the other machine.

On a more positive note, anyone who is *independent* of an external computer is better off than before. Printing directly to infrared-enabled printers works well, and the greatly improved graphics handling, embedding and formatting options and unlimited document sizes mean that you can now use your Psion to create much more complex documents *without* recourse to a full-sized computer. The lower cost of CompactFlash compared to SSDs also means that PC-less backups are more practical but still secure.

The Series 3 and Siena range remain extremely powerful little computers, and they haven't suddenly become obsolete now the Series 5 is here. Despite aggressive pricing of the 5 I would still consider it more of a machine for the person who either does a lot of typing on their palmtop, or who needs to create documents with more sophisticated formatting than the '3' will allow. The Series 3 is just a tiny bit lighter and smaller, runs a little longer on batteries, and is still the ideal machine to manage a busy person's diary, addresses and other databases, together with modest word processing and spreadsheet requirements. There is a colossal amount of excellent software for the Series 3 range of machines, and despite the fact that the '5' is equally programmable it will be many months before a similar range is available for the Series 5.

The last word

In conclusion, the Series 5 is a viable alternative to a laptop computer for many people. It's great for writing long documents and polished reports, is the ideal companion to a Windows 95 PC, and is easy to learn and use. If you're looking for maximum computing power in a pocketable machine then the Psion Series 5 has no peers—at least not yet.

A little WinCE

Even the most ardent Psion user is not an island, so we take a look at one of the top Windows CE offerings to see how it fares against Psion's big guns...

by Steve Clack

First impressions

A few minutes with Hewlett Packard's top-of-the-range 4Mb HP320LX (RRP £649 including VAT) show that it is well constructed, at least equivalent to any Series 3 or 5. The HP is much bulkier than the Series 5, at around 100 grammes heavier and about 20mm longer. The HP screen is also slightly bigger than the Psion's (though it has the same 640x240 pixel resolution). Interestingly, the Psion's screen emits a high pitched whine when the backlight is switched on, but the HP doesn't. Some people find this noise irritating when working, so the 320LX scores a little here. I found that the contrast of the HP screen with the backlight on was marginally better than the Series 5, but not as good as the Series 3c's.

The keyboard is larger than either the Series 3 or Series 5's, and it's more responsive than the 3a/3c keyboard, but the keys are relatively small, and *far* inferior to the Series 5's superb example.

The worst hardware 'feature' of the HP (and all the other CE machines I have seen) is that both halves of the machine are almost equally bulky, and whenever you tap the touch-sensitive screen with the pen (or a finger) the machine just falls over onto its back! The only way I could prevent this was to support the machine with one hand to stop it moving, but this meant I could only type with the fingers of my other hand.

System software

The system software is instantly recognisable as *Microsoft Windows 95*, right down to the 'Start Bar', drag-and-drop icons, and the 'Windows Explorer' file manager. Drag-and-drop allows you to tap on any program or file icon and slide it to any other position on the screen. This works fine on a small palmtop screen, and it's a pity that Psion haven't implemented this on the Series 5 too.

Looking deeper into the operating system the cracks start to show: it's impossible to zoom fonts in *any* application—the only way to do it is to adjust the point size directly, then change it back again when you want to print out. This is crude in the extreme.

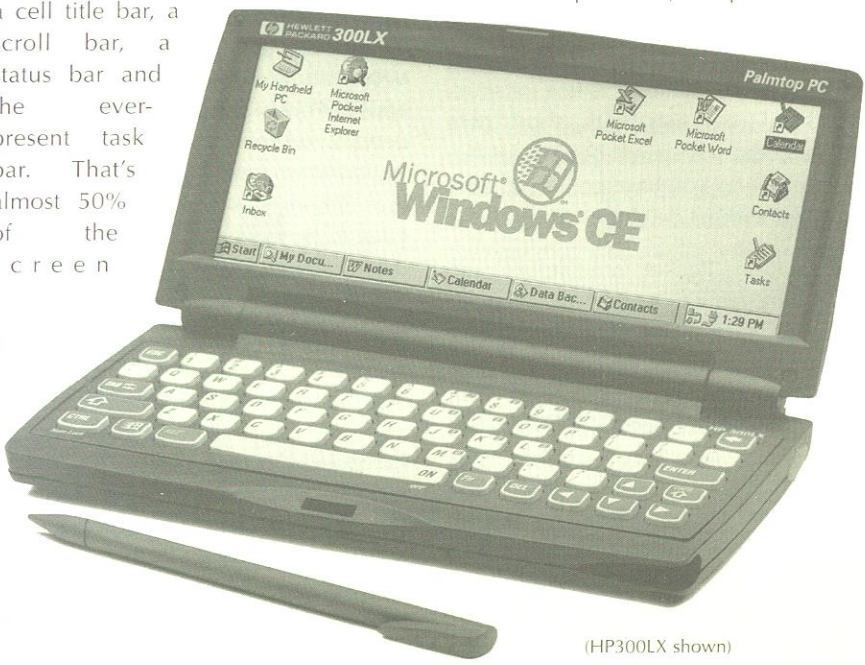
The HP 320 LX is one of the only CE machines that *has* a printing facility (amazingly), and even this has no print preview option.

The built-in applications

Lots of screen space is wasted in most of the built-in programs. In the 'Pocket Excel' spreadsheet there is a menu/icon bar, a formula bar, a cell title bar, a scroll bar, a status bar and the ever-present task bar. That's almost 50% of the screen space—and none of these space-wasters can be either configured or turned off!

CE's 'Pocket Word' is a mere shadow of WORD on any of the Psion machines, and although it has an outline mode and offers bulleted lists, it lacks paragraph styles, word count, templates, spell checking (or thesaurus), indents or adjustable tabs. In short, 'Pocket Word' is nothing more than a very basic text editor, lacking most of the features associated with a 'proper' word processor. There is also no password protection facility in CE, so you can't keep your documents safe from prying eyes.

'Pocket Excel' allows better worksheet formatting than the Series 3 (shading, borders, etc.), but lacks *any* graphing capabilities, cell protection or



(HP300LX shown)

passwords. 'Pocket Excel' has no significant features that the Series 5 does not, and suffers greatly from the wasted screen space taken up by all those immovable toolbars.

The CE 'equivalent' to Psion's AGENDA is made up of two applications: 'Tasks' and 'Calendar'. The 'Tasks' application is a flexible and usable 'to-do' list, and 'Calendar' forms a reasonable diary with day and week views. The Psion equivalent on both Series 3 and Series 5 machines is far more adaptable than the Microsoft solution though, with more ways to view your data, and in the case of the Series 5's embedding capabilities—more all round flexibility. Object embedding is missing from all the CE applications, so you can't create composite documents as you can with the Series 5.

CE's 'Contacts' database is fine for structured address lists with short note attachments, but cannot be used for free form data—so you have no way to store any non-address databases.

The built-in 'Pocket Internet Explorer' feels very similar to the full-sized PC version, and for the moment offers a smoothly integrated WWW and e-mail solution that the Series 5 does not. This should hopefully be addressed when *PsiMail Internet* is released for the '5' in a month or so.

The Windows 'World time' application is good, has an alarm function, and even shows the three letter code for a city's international airport. There are no sketching, programming or recording features built into the HP320LX, but the new *Philips Velo* CE machine offers voice recording similar to the Series 5.

In summary

The current crop of Windows CE machines are ample evidence that it is not enough simply to port a desktop operating system to a little computer and then sell it on the benefits of 'compatibility'. Any small advantage from having the familiarity of Microsoft Windows on a palmtop computer is quickly negated by its other shortcomings, and the HP possesses little of the Psion's style and attention to detail.

Even when presented to true Windows aficionados, the Psion Series 5 still won over with its ease of use and powerful applications. This vindicates Psion's decision to forge ahead with their own (superior) operating system, and proves that although Windows CE may be a force to be reckoned with in the future, the current incarnation is a long way off the mark. If you are looking for a small, powerful 'mobile office' then the Series 5 is unquestionably the current state of the art. The nearest competitor in terms of power is the latest *Apple Newton 2000*, but this is much heavier, bulkier, and more expensive than the Psion, and use of its built-in word processor and spreadsheet requires that you attach a separate keyboard, at which point the benefits of portability are largely lost.

Programmers' Workshop

Series 5, a new programming EPOC?

by Leigh Edwards

You've bitten through the cellophane, frantically ripped open the box, so what's inside? A sexy new system, a user manual, a serial cable and a CD-ROM packed with useful stuff, including PsiWin 2.0 (which only works with Windows 95).

A few minutes tinkering will reveal that the Series 5 is easy to use, but quite different From the '3'—so how does it differ from a programmer's perspective?

ARMed to the teeth

With a 32-bit ARM (Advanced RISC Machines) 7100 processor whirring away at 18.432 Mhz, the Series 5 is said to be rated at 15 MIPS (Million Instructions Per Second)—equivalent to a 33Mhz Intel 486. The processor has an integral MMU (Memory Management Unit) to protect the operating system and other processes from bugged applications, however the really good news is the 4 or 8 megabytes of RAM included, plus the removal of the 64K memory constraints on programs and data. The Series 5 ROM is also now a relatively massive 6Mb.

Flash gets flashier

Concerns about storing certain data such as text and document files on flash SSDs are a thing of the past. Psion have adopted the new industry standard *CompactFlash*, so media reformatting is no longer required—deleted file space is recovered automatically.

Big, and sensitive too

The display has twice as many pixels as the 3a/3c (153,600 versus 76,800), 16 grey levels, and is touch sensitive too. Screen resolution is now 640x240 pixels (half VGA), but the sensitive area

is 695x280, so the icon-bar and side-bar do not take display space.

Three graphics drawing modes are possible:

- *Two 'colour'*: black and white, no grey.
- *Four 'colour'*: black, white, light grey and dark grey.
- 16 *'colour'*: black, white, and 14 grey levels.

Although 16 'colour' mode can lead to impressive graphics it's not a good idea to use it for large screen areas, as the battery load is very much higher, and the bitmaps occupy far more memory and disk space. For graphics including grey, four level mode is preferable.

Touch sensitivity has a down side: to use it your programs must be event driven. Series 5 applications should respond to key presses, pen events (called taps), and system events, e.g. messages to switch documents, shut down, etc.

EPOC32

Psion's new operating system is based on a small and highly optimized real time microkernel (in assembly language), but the bulk of the system is written in C++, even the device drivers!

The internal RAM drive is designated as drive 'C:', the single CompactFlash drive is drive 'D:', and any other drives may be assigned letters 'E:' to 'Y:' (The machine's built-in ROM is referred to as drive 'Z:').

Storage space is subdivided into 'folders', and filenames can be up to 255 characters including spaces. Document names no longer use the old three letter extensions.

Application Types

Only two application types are now recognized by EPOC32—those that use files and those that don't—instead of the six possible types under EPOC16. The RunOPL icon has gone: OPOs just appear on screen when the appropriate folder is open. Applications can also have long names, up to a maximum of 250 characters. Under the new system 'standard' applications will have a Windows style '.INI' file and have unique identifiers (UIDs).

INI files

Information in the program '.INI' file is read or updated as necessary when an application starts up or closes down. Program settings and information is stored in the '.INI' file, such as the last file the application was using.

UIDs

Files which belong to an application are identified by having the program's UID

embedded in them, rather than by their location and file name extension. Such files are referred to as *documents*, because they will launch their application if selected.

Applications developed for personal use may safely use any UID in the range `&0100000` to `&0fffffff`. Psion will issue UIDs for applications that are to be distributed. These are guaranteed to be unique and start at `&10000000`. You can e-mail *uid_sw@software.psion.com* to get your own UIDs, or for more information.

Machine IDs

Programmers interested in copy protection or shareware registration will be intrigued by the possibilities presented by 16-digit unique machine identifiers included in Series 5 machines.

Does it speak my language?

So, when you've absorbed every last detail and explored all the standard applications of the Series 5, how do you make it hum *your* tunes?

Initially there will be two main options: OPL32 (the 32 bit successor to OPL16), or C++, which succeeds the SIBO C SDK. OVAL will not be available in the first Series 5 systems, although this is likely to be remedied in the not too distant future.

Psion Software PLC recently announced they had licensed Java technologies from Sun Microsystems Inc, and intend to port it to the EPOC32 platform. Java is a cross-platform industry standard development language allowing the development of fully featured programs, and its strong Internet support will make it easy to develop Internet-centric applications for EPOC32 platforms.

OPL—it just gets better

Looking under the 'Extras' directory on the PsiWin CD will reveal the OPL programming documents in Microsoft Word 6 format. An additional document (OPLMAN32.DOC) describes porting of OPL16 programs to OPL32. These documents are also available from Psion's WWW site.

Some OPL16 programs will need only minor modification to run under EPOC32. It will depend upon the complexity of the code, the dependence on operating system calls, and possible use of OPL16 SDK library functions.

Some aspects of OPL16 have gone, some new features have been added, and the syntax of some language statements have changed due to extra options or the effects of 32-bit addressing. For example, direct calls to the operating system have gone, but most have been replaced by language extensions called OPXs.

What are OPXs?

OPL is now extendible—six additional 'libraries' or OPXs are provided as standard.

- Date & time handling.
- System related, i.e. most of the O/S calls you could want.
- Bitmaps for use with buttons and Sprites.
- Sprites.
- Database extras, including a subset of SQL.
- Printing: text, bitmaps, formatting information and print preview.

Using OPXs is relatively easy, but the Series 5 C++ SDK is required in order to develop your own.

Crunching code

A burning question for many will be: "How fast is OPL32 compared to OPL16?". My simplistic benchmarks confirm statements from Psion that OPL is about three times faster overall. It's great news for lovers of structured programming—the overhead on procedure calls has come right down—they are now up to *fourteen* times faster. Calling OPX functions is said to be as fast as calling OPL's built-in functions. Incidentally, auto switch-off now functions even inside tight loops—you have to deliberately disable it in OPL32.

Names, includes and constants

Identifier names, i.e. names of variables, parameters, constants and procedures can be up to 32 characters long, including any variable type specifier. Header files may be 'included', e.g. for the definition of constants and even procedure prototypes.

Modules and cacheing

`LOADM` now 'officially' supports up to seven program modules loaded concurrently, though this was possible 'unofficially' on earlier systems—if speed is an issue it's wise to keep this to a minimum. Procedure caching is now automatic.

Events

For pointer events (pen taps) a new function, `GETEVENT32 ev&()`, has been added. There's an asynchronous version too, `GETEVENTA32 ev&()`.

Databases

26 simultaneous data files are now supported, using the logical identifiers A to Z. Native Psion '.DBF' databases can be accessed, but only in read-only mode. PsiWin 2.0 does not convert ODB files yet, but I believe a convertor

may be in production. I recommend the use of *JBdata* (an excellent Freeware program by John Boyce) to save the data in delimited text format, then import the text file into a database on the Series 5.

A much improved database server is available to OPL32, with many new keywords. A number of more advanced database features (such as indices) are provided via a database OPX.

Graphics

Up to 64 drawables (windows and bitmaps) can be used at once—the previous maximum was eight. Animating graphics is easier: multiple Sprites can be used simultaneously (I can't find a stated limit), but it's not advised to use more than *20* at once!

A new bitmap file format is used. The new '.MBM' files can hold multiple bitmaps in compressed format (by a factor of two over the EPOC16 format). Utilities are supplied on the CD for converting bitmaps between PC '.BMP' formats to S5 and back again. Icons and bitmaps may be imported and exported from the built in SKETCH application.

Sound

Sound files are now more compact, and utilities are provided on the CD for converting them from Series 3a/c to Series 5 formats, and transferring in either direction with PC '.WAV' files.

Being helpful?

Help is implemented using EPOC32 database files containing two fields: a subject field and an information field. Help is called by running the DATA application via a System OPX, and passing the name of your help database as a parameter.

Unfortunately the main 'Help' key takes you to generic system help, not to application specific help. Application help must now be made available as a menu option by pressing <Ctrl><Shift><H>, and preferably via a help button on the application's toolbar. Status windows have been replaced by toolbars, located on the right hand side of the screen.

Exiting from help dumps you back into the system screen, instead of returning to the application where you called for help. My preferred method for getting back from application-specific help into the application is by holding down the <Fn> key and tapping the System icon.

OPL options

Programmers can develop full applications on the '5' itself, but an OPL SDK (Software Development Kit) is available for commercial developers, or for those who want all the bells and whistles.

The Psion OPL32 SDK includes:

- The PC-based 'WINS' emulation of the Psion Series 5.

- Tools.
- Examples not found on EPOC32 machines.
- Documentation, in HTML and RTF formats.

An equivalent to the OPL16 SDK libraries is not supplied with the EPOC32 OPL SDK. To replace any required EPOC16 OPL library functions, an OPX must be written. A PC running under Windows 95, Windows NT 3.51 or Windows NT 4.0 is needed, with 25Mb of free disk space.

C++ Development

The Psion C++ SDK includes:

- All user-side class libraries.
- The WINS emulation.
- Tools (for project control, resource compilation, bitmap and sound manipulation, etc.)
- Example code.
- Documentation, supplied in HTML, which includes many navigational aids, including links to class definitions from all their references.

The C++ SDK includes the GNU tool chain required to compile for MARM. You will also need Microsoft Visual C++ to compile programs for WINS—the Windows version of EPOC32. Standard or learning editions of Microsoft Visual C++ may be used (because WINS does not use MFC libraries). You'll need a PC running Windows NT or Windows 95.

Psion's Support World

EPOC World, Psion Software's developer support organisation, was officially launched on 1st July. Two types of EPOC World subscription are available, priced as follows:

'C++ Developer' subscription - £200

'OPL Developer' subscription - £75

An EPOC World subscription includes a 1 year account, including access to the EPOC World website, a copy of the latest SDK on CD-ROM and one update when the next version is released.

The EPOC World website includes:

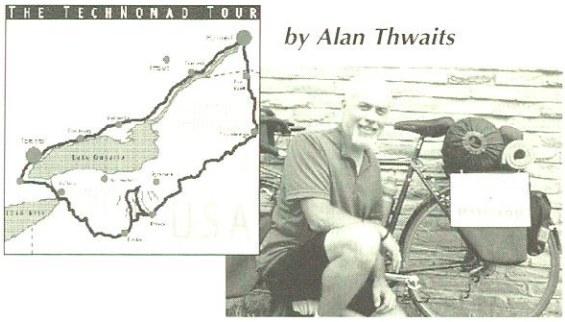
- The latest EPOC32 C++ and OPL SDK documentation and tools.
- Extra utilities, example code, documents and how-to guides.
- Knowledgebases.
- Contact details for defect reporting.
- Administrative services.
- Training Course timetables.
- Conference details.

Contact:

Customer Services Department, Psion Plc, 1 Red Place, London W1Y 3RE, Tel: +44 (0)990 143050, or alternatively email ew_subs@psion.com

The Technomad Tour

Sponsored in part by *Palmtop* magazine, Alan Thwaits heads for the hills on a 1200 mile tour around Canada and the Northern USA—armed with a Series 3c...



by Alan Thwaits

Ah, the delightful sounds of a long-distance cycling tour! The hum of tyres on a good road surface. The 'snick' of a clean-shifting *derailleur*. The crackle and hiss of a high-speed cellular modem...

What's that? How on earth did the modem get in there? Well, if you'd been with me on a recent 1,800 kilometre solo cycling trip through Ontario, Québec, and New York State, the modem sound would have been a daily occurrence. As would the sight of a Psion Series 3c hooked up to a cellular phone...

The *TechNomad Tour* was a test of mobile computing technology, set in the context of a journey powered by legs and lungs. My job was to do my work as a freelance technology journalist while travelling 'unplugged'. My Series 3c 2Mb machine was the centre of this 'self-powered platform with remote access capabilities'. Using the *PsiMail* application, a PC-card adaptor and cellular modem, cellular phone and digital camera, I travelled around one of the Great Lakes, across a couple of major urban areas, through the Adirondack Mountains, and back past the mighty Niagara River, filing articles to my editor at *Canada Computes* magazine, as well as updating my TechNomad Tour Web site on a regular basis.

The Tour took place over two weeks in June, but preparation for it began much earlier. In the late summer of 1996, I mentioned the idea of developing a Psion/cycling-based road show to Mara Gulens, my editor at *Canada Computes* magazine. The rest, as they say, is history—Mara commissioned a three article series on the Tour and enlisted

the magazine's help as primary sponsor, while I began my search for supporters.

By the following spring, I had found a number of enthusiastic backers. Syscan International Inc. (Canada's Psion distributor) loaned me a copy of the (then brand-new) PsiMail application and a PC-card adaptor, and Kodak Canada one of their digital cameras. My Bell Mobility representative loaned me a Motorola 14.4 CELLect modem, and US Robotics a Megaherz 33.6 modem. Widget Canada supplied a 'backup' 3c machine, and *Palmtop* magazine, Canada Computes, and a friend offered funding assistance. The 3c and cellular phone were my own, as was the bicycle, a 1991 Miyata 1000LT tourer.

Lots of ideas, support, and enthusiasm came from members of PEAT (the Psion Enthusiasts' Association of Toronto). At meetings during the winter and spring I explained what I wanted to do, and received advice, wisdom, and encouragement from PEAT members. (Blake Nancarrow and Campbell Barr, in particular, deserve thanks for helping me sort out using PsiMail with a cellular connection, as does Jochen Siegenthaler of Switzerland, who heard my pleas for help on the *comp.psion.misc* newsgroup and responded via e-mail). In the cycling department, I had lots of feedback on the TechNomad idea from the folks on *touring@cycling.org*, an Internet mailing list devoted to the nitty-gritty (and passions) of long-distance cycling.

The Tour was designed as a place to ask questions. The answers, hopefully, would be of use to long-distance cyclists, sailors, sales people—anyone, in fact, with an interest in the growing area of mobile computing. Would the hardware and software work together reliably? Would cellular access be available throughout the Tour's route (in theory it would, but theory and practice are often different things)? How would the various tools be affected by the vibration from being on the road six to eight hours each day? What about the rain that's the inevitable companion of touring cyclists? (Dealing with the bike and rider was the easy part—I'm an experienced touring cyclist, and the bike was designed to go long distances comfortably and safely.)

Besides PsiMail, which was the 'command centre' of the whole operation, I used other Psion apps to help me stay connected. Naturally, the WORD program became the vehicle for a daily journal, as well as articles I would write about the Tour. I used SHEET to create a tool with which I could, easily and quickly at the end of each day's ride,

record places of departure and destination, start and end times, kilometres ridden, and money spent on food, lodging, and parts. SHEET very tidily totalled up distance, time, and costs to give me a snapshot of each day's ride, and accumulated totals for the tour. I also evaluated a shareware program called JWIN (Just What I Need) version 1.4F. JWIN ***(reviewed in issue 10 of Palmtop-Ed.)***, which allowed me to convert distances, speeds, currencies, and weights during my time in the US—as it seemed a good idea not to babble in metric when friendly (non-metric) Americans asked about the trip!

How did the experiment turn out, you ask? To begin with, the cycling was wonderful! The mountains were difficult but fun, the weather was good, and the only mechanical problem I had was a broken rear derailleur cable, which was easily and quickly repaired.

More importantly, the worth of the PsiMail/cellular combination was proven. Everywhere I could get cellular access, e-mail flowed back and forth to editors, sponsors, and friends. Part of my routine at the end of each day's ride, after setting up my tent, making a cup of tea, and having that all-important shower to wash off the road's dust, was to fire up the Psion, PC-card adaptor and cell phone, send off accounts of the day's ride to *Canada Computes* and to the TechNomad Web site. I also collected messages (including some from people I had met while en route), and checked out a couple of text-based Web sites offering weather reports for the next day's route.

It was a wonderful combination of high-tech content in a low-tech context. The cell phone would beep, the modem crackle, all those messages would come pouring in, seemingly from the ether itself, while I watched a Great Blue Heron tiptoeing through the reeds in an inlet off the St. Lawrence River, or listened to the cry of a loon as it skimmed a wilderness lake in the Adirondack Mountains. No system crashes, no lost messages, and an incredible sense of connectivity with colleagues and friends.

As I said, this worked everywhere I could get cellular access, which meant all through Ontario and Québec, the

area served by Bell Mobility's 'roaming' access. In New York State, things were different. NYNEX, which provides telephone service throughout the state, doesn't offer much cellular access outside of the Long Island area, so there were days when I simply couldn't connect. That made for an odd feeling—I'd so quickly become accustomed to the two-way flow of information that being without it made me feel quite isolated!

Cellular was a bottleneck in another way. As cellular phones only transmit at a maximum of 9600 bps, my hopes of transferring photo images as attached files to e-mail messages soon evaporated in light of the time (and expense!) it would take to transmit an image file at that slow speed. Luckily, the Kodak DC25 digital camera allows for up to 29 images to be stored, so I adopted Plan B—archive the photos, and upload them to the TechNomad site when I returned.

The good news is that the basic ideas behind the Tour worked—that I could use a palmtop computer and a mobile phone to stay in touch, and that the tools survived the extreme conditions imposed by exposure to the road and to the elements. More significantly, the Tour's learnings mark only the end of the beginning. Mobile computing is developing at a rapid pace in all of its aspects—which means that I'm planning an enhanced *TechNomad 2 Tour* for next year.

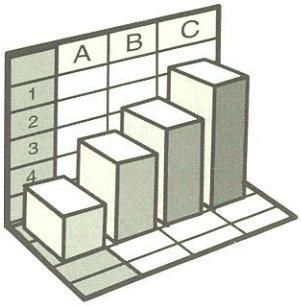
Wireless digital access will be in place throughout most of Canada next year, and the new Series 5 offers lots more memory than my 3c (which opens up possibilities of transmitting video and sound files to a Web site). One of this year's sponsors has hinted that free access to wireless digital and satellite technologies might be made available. A friend has offered the results of his recent experiments compressing images taken with a mini-cam recorder. A solar panel/dynamo-powered charging system will replace the battery charger I used this year, and a Psion-compatible GPS system has been offered for testing. The bike will see some minor upgrades, and the rider will be only a year older (but that much wiser, one hopes...)

Now all I need is a TechNomad 2 Tour route—hmmm, let me see—a quick run to the Atlantic Ocean and back? The mountains of New Hampshire and Vermont? A tour of the beautiful Gaspe region of Québec? Sound interesting? Check out the TechNomad Web site from time to time to keep up to date on new developments!

The TechNomad Tour Web pages can be found at this World Wide Web address: http://www.praxcomm.com/nomad.htm

Alan Thwaits is a freelance journalist who specializes in online and mobile computing technologies. He can normally be reached by e-mail at info@praxcomm.com

Working with SHEET



A series aimed at the relative beginner to the Psion's built-in programs—here's the second part of our new tutorial on using SHEET, the 3a/3c/Siena's capable built-in spreadsheet...

by Steve Clack

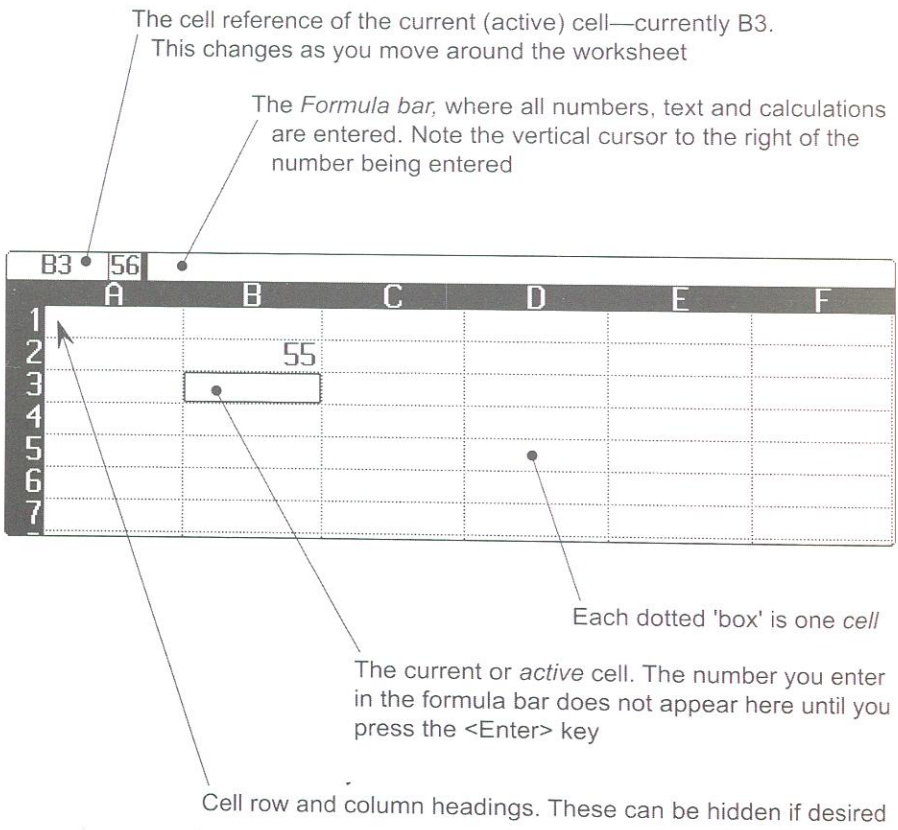
After setting the scene by summarizing the major features and limitations of SHEET on the Series 3a/3c and Siena, we'll now get down to some more serious stuff—learning the ropes...

On the grid

Before entering any data it's important to have a grasp of how the spreadsheet's grid system works. Each 'box' you see on a blank spreadsheet (or *worksheet*, as it is also known) can be used to store one number or calculation. 'One number' doesn't mean a single digit in this case, but a single *expression*, like '1234.567', '10+5', or 'Tax totals'.

Numbers are entered by simply typing them into the *formula bar* line at the top of the screen, then pressing the <Enter> key to put them into the highlighted cell on the worksheet (see illustration overleaf).

Moving around the worksheet is achieved primarily by using the four arrow keys on the bottom right of the Psion keyboard to go from cell to cell. If you press the arrow keys and nothing happens then the cursor must be flashing in the formula bar, denoting that you are in the middle of entering a number or calculation. Just complete the number you were entering and press the <Enter> key to make the arrow keys active again.

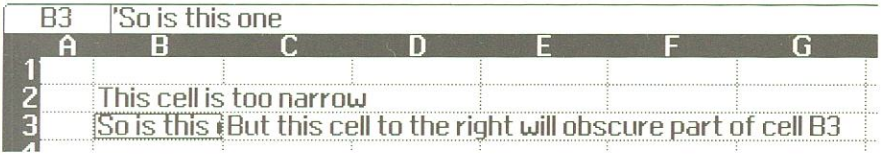

The cell reference of the current (active) cell—currently B3. This changes as you move around the worksheet
The *Formula bar*, where all numbers, text and calculations are entered. Note the vertical cursor to the right of the number being entered
B3
56
A
B
C
D
E
F
1
2
3
4
5
6
7
55
Each dotted 'box' is one *cell*
The current or *active* cell. The number you enter in the formula bar does not appear here until you press the <Enter> key
Cell row and column headings. These can be hidden if desired

To help get around a big spreadsheet more quickly there are a number of keyboard shortcuts and special commands available, but we'll cover these in detail in a later instalment.

When entering data, the first thing most users notice is that long numbers or text labels often spill off the right hand end of cells and into the adjacent one. This only happens if the cell to the right is blank—if there is already something in the adjacent cell then the right-most portion of the information will just be cut off short, with no indication that anything is missing. This is quite normal for spreadsheets, and it's easy to fix the 'problem' by adjusting the column widths accordingly...

Cell widths

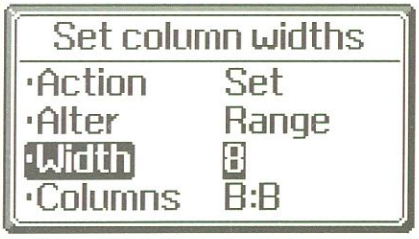
It's not possible to change a single cell width in a sheet, otherwise it would disrupt the alignment of everything



Overlapping data in cells. Just adjust the column widths to get around this

around it. Instead, you must always adjust complete columns of cells together.

To change the column widths it's not necessary to have the cursor within the column you're changing, just select 'Column widths' from the 'View' menu. This will bring up a dialog box containing all the column width options (see screenshot below).



Initially the 'Width' line will be highlighted. This sets the width of the column range as set in the 'Columns' line below it. By default the 'Columns' line will show the column range highlighted by the cursor, but it's easy to change this to select a different range. If you want to adjust column B then set the 'Columns' line to 'B:B'. To adjust columns B, C and D type in 'B:D' instead. The letters refer to the column(s) of cells directly beneath the corresponding column headings.

The number in the 'Width' box can be set to anything between 0 (yes, *zero*) and 99 characters wide. You can temporarily (or permanently) hide entire columns by setting the width to zero, which can be useful to mask reference data and formulae once they have been entered. If you accidentally set a column width to zero it will disconcertingly disappear from the black 'Column headings' bar at the top of the screen, but it's a quick matter to reset it from the column widths box.

When adjusting column widths it's important to keep the 'Alter' line of the column widths box set to 'Range'. If it is set to 'Default' instead it will change the width of *every* cell in the entire sheet—which can sometimes be useful. If you decide to reset some columns back to their original width (the default value of 8 characters) then choose 'Restore' from the 'Action' line, and things will return to their preset values.

Row heights

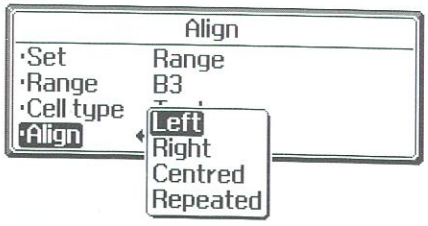
It's not possible to adjust row heights using the Series 3a/3c/Siena version of SHEET, nor to put more than a single line of text in a cell. These things are all

possible on the Series 5, but if you need to add a multi-line block of text in the Series 3 SHEET simply put the extra lines of text in the cells directly below.

Line 'em up

To conclude our discussion of formatting it's important to know that most data can be aligned to either the left, centre or right side of a cell, just as you would align paragraphs in a WORD document.

Unless specified otherwise, textual data will always be aligned to the left of each cell, and numbers to the right. It's often useful to change the alignment of text data (which is usually only entered into spreadsheets to label the numeric data anyway) so that the text sits close to the numbers it refers to. Choosing 'Alignment' from the 'View' menu will invoke a dialog box from which you can control the text alignment as either left, right or centred. A fourth option, 'Repeated', will fill an entire cell (or range of cells) with whatever *single* character has been entered into the cell. As Series 3a/3c/Siena SHEET has no dedicated feature to put borders around cells this can be used to 'draw' horizontal lines across rows using either the hyphen or underline characters.



Aligning text

	C	D
Left aligned text		
Right aligned text		
Centred text		
Right aligned numbers -->		123
Left aligned numbers -->	123	

Data...left, right and centre

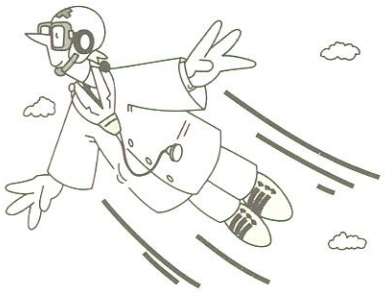
Numeric data is almost always best kept as right aligned, because columns of numbers are easier to read that way—particularly if the numbers involve currency values. Numeric data *can't* be aligned to the centre of a cell, but it can be handy to set a single isolated number as left aligned when it's in a wide cell, just to put it closer to an adjacent text label.

As with the column widths dialog, it's possible to set a selected range or the whole worksheet to default as the alignment style you specify.

In the next instalment we'll look in detail at how to select different ranges of cells and data, how to insert and delete cells, how to format the actual numbers, and then how to input some useful formulae!

Programmers' Surgery

Rick ("The Doc") Andrews gives the second part of a two-part answer on using the EPOC API



The procedure listed in the last issue showed how to access a system call, i.e. the `FilStatusDevice` function. Note that in order to use it, you should pass in the name of a disk like this: `DStatus:("M:")`

To discover how to read the information returned from the system call, let's first find out *where* to read it from. Looking at the OS call interface in the Psionics file or Psion's own SDK, you'll see that we need to pass in the address of a 64 byte buffer to hold the information that the OS call will return. In this example, we use `buff%` to hold the address of `chunk%()`, a 32 element array of integer (two byte) numbers, giving the 64 bytes we need in total.

So the call is made, and provided it is successful the OS fills the buffer with the data as documented in the interface (see table overleaf).

Why is the data passed back in this way and not in a bunch of variables like, say, `SECSTODATE`? (This is where the function returns its data in a group of eight variables, rather than a single squashed block). Well, it could be done in this way, but it would make the `FilStatusDevice` OS call bigger and slower, and if you multiply that by the hundreds of system calls available you would end up with a fatter ROM and a much slower version of OPL.

The information is in the buffer—how do we get it out? We know the memory address of the start of the buffer (`buff%`) and can look up (in the API specification) the offsets of the data elements from the start location. Adding these together gives us the address of the data. Then, depending on the type and length, we use `PEEKB`, `PEEKW`, `PEEKL`, `PEEKF` or `PEEK$` to read in whatever we want from that address.

These functions will extract the data from the buffer and present it in a more manageable form, but take care to use the right **PEEK** keyword. For example, if you try to read a word (two bytes) with **PEEKL** (remember this reads four bytes), you could potentially end up with a far bigger number than you were expecting. Take care to match the correct **PEEK** function to the data type!

As an example, let's look at the Device Type. It's a one byte type, so we need to use **PEEKB**, and it lives at offset 2. So the OPL code would look like this:

```
devtype%=PEEKB(buff%+2)
REM buff% = the addr of buffer.
```

Note that the Volume name field is a zero-terminated string (ZTS—a string of chars ending with a byte containing 0), whereas OPL strings are a different type: length-byte leading, where the first byte is a count of the number of chars in the string. (This is why OPL strings can't be bigger than 255 chars). You'll need to convert between the two formats to use ZTS strings in OPL, and remember that **PEEK$** expects an OPL string format.

In summary, the answer to the question "how to read the information returned" is first to find out *where* the desired data is located in the buffer, then decode it using the format given in the API.

Although the Psion has an excellent OS which is very difficult to crash, it's better to be safe than sorry, so backup before you start using OS calls!

Contents of 64 byte buffer after calling OS function `FilStatusDevice`.

Offset	Length	Description
0	word (2b)	Buffer format version
2	byte (1b)	Device type 0 = unknown 1 = floppy 2 = hard disk 3 = Flash 4 = Ram 5 = Rom 6 = write-protected
3	byte (1b)	Device properties bit 3: formattable bit 4: dual density bit 5: internal bit 6: dynamically sizeable bit 7: compressible
4	word (2b)	Non-zero if the device contains removable media
6	long (4b)	Total space on the device in bytes
10	long (4b)	Free space on the device in bytes
14	zts (32b)	Volume name (31 chars plus null).
46	word (2b)	Device battery status 0 = low battery 1 = battery OK -4 = status not available for this device type

This field is not valid if the Format version (offset 0) is less than 3.

Steve's Siena Spot

More ways to get the most out of your tiny palmtop

by Steve Litchfield

Much has been written in the online Internet forums about the Siena's less-than-perfect keyboard, but little has appeared in print so far. Thus I thought a quick summary was in order.

The case for the prosecution says that the Siena's keyboard is almost unusable because of its propensity for missed and doubled keystrokes. The keys are particularly wobbly compared to better examples of the 3a and 3c keyboards.

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In the Siena's defense, if you look at its
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```

Just to prove I can type on it!

The thinnest keyboard

In the Siena's defence, if you look at its keyboard side-on you'll see how incredibly thin it is, and that it's surely unreasonable to expect a fast and accurate key action from a mechanism less than 2mm in thickness. Also, this article is being written on my Siena without too many problems, proving that it *is* possible to type usefully on it.

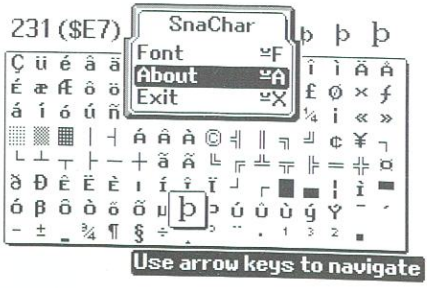
So the Siena's not built for large amounts of typing. I don't have a problem with that—its tiny size is a benefit that outweighs quite a few possible defects. You do get used to the keys after a while; I find a positive stabbing motion works quite well, though this can be a shock after the way you can almost *caress* the Series 3c's keys.

Wipe your battery

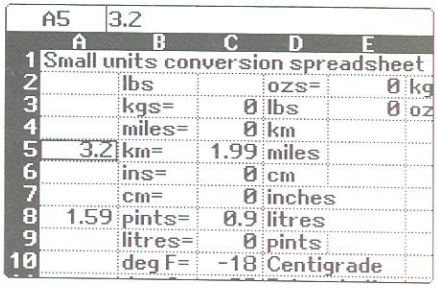
While on the subject of possible design defects, a number of people have been reporting backup batteries that only last a few days. Please note that the 'Replace Backup Battery' warnings are usually caused by user error: it is vitally important when inserting a backup cell into any Psion to avoid touching the surface with your fingers. If you *do* touch it you'll either discharge it across your skin or else leave a residue of finger grease which will prevent proper contact with the inside of the battery compartment. I find that easing the cell in by holding it in a piece of toilet paper works well. Another good tip before inserting the new battery is to take another piece of tissue paper and clean out any dust or grime from the backup battery compartment, being careful not to leave any fragments of paper behind.

The Siena Plus Pack

I promised to write more this month on my ideas for the 'Siena Plus Pack'. In



'Chars'

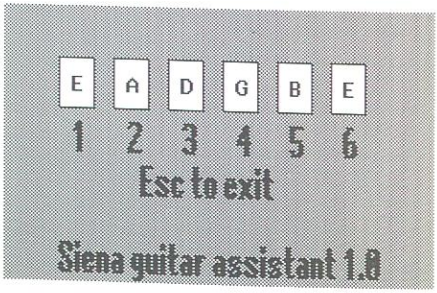


A5	3.2				
	A	B	C	D	E
1	Small units conversion spreadsheet				
2		lbs		ozs=	0 kg
3		kgs=	0	lbs	0 oz
4		miles=	0	km	
5	3.2	km=	1.99	miles	
6		ins=	0	cm	
7		cm=	0	inches	
8	1.59	pints=	0.9	litres	
9		litres=	0	pints	
10		deg F=	-18	Centigrade	

'Units'

line with my ramblings on finding small and efficient programs to match the Siena itself, the *Plus Pack* is a selection of free, tiny (2K or smaller), and hopefully useful programs. Each should be done as an '.OPO' file if at all possible so that they can all be run from the 'RunOPL' system screen list. At the time of writing I've only implemented six, but I'm very open to suggestions from *Palmtop* readers. The pack items done so far are:

Chars - a cut-down version of Tom Dolbilin's CHARM utility. Special characters (accents, graphics, etc.) can be selected from a table view and 'brought' across into a standard Siena application.



'Guitar'

Guitar - a simple guitar tuner. OK, so not everybody plays the guitar—but it's useful to me and it's soooo tiny.

Hour - a (very quiet) time-beeper. Useful in the middle of the night, when turning the light on to read the screen might disturb your partner.

Units - a small spreadsheet with calculations set up for most common units conversions.

Communicator - a novelty which makes your Siena beep like a Star Trek communicator whenever you turn it on(!)

Tree - scans your Siena's disk for files and presents them in order with their sizes. Useful to remind you where your disk space has gone.

As I say, all Siena Plus Pack items are freeware. Maybe future additions to the pack will feature *your* ideas?

Genuine portability

Owning a Psion palmtop is all about information. It gives you instant access wherever you are to just about anything you've loaded it with. And having amassed all these databases, documents, spreadsheets and so forth it's wonderful to be able to cram them all into something 5 inches by 3 inches by not very much. In fact, because the Siena is only about half the weight and volume of a typical Series 3c or Series 5, it's more likely to be with you at all times, as you'll have more options for carrying it.

Steve's 'cowboy' syndrome

Although a Series 3c or 5 will fit a typical jacket pocket, there won't be room for anything else and you'll be aware of the weight. A Siena in the same position allows room for other items and you'll probably forget it's there. Similarly for a belt case or holster. I've got very used to my Siena in its case on my hip and I genuinely don't notice it's there. Until I need it, in which case it's reassuring to know that it's *always* there. The old film cowboys used to joke about putting on their gun with their 'pants' in the morning, I tend to feel the same way when I get dressed each day!

Keep it handy!

And of course, the whole point of a Personal Digital Assistant is that it has to be with you all the time to be any use at all. Psion owners I've known who've been afraid to take their palmtops out with them for one reason or another eventually gave them up and went back to their disorganised lifestyle. So—back that Psion up and take it with you on your walk of life.

FOR SALE

Series 3a (512K), PsiWin, Games Deluxe (3a), Games 2 (classic) and leather case (all less than one year old) - £200.

Contact: Kevin Chimusaru
tel: (01702) 393043
e-mail: achimusaru@aol.com

4Mb flash SSD - £200
1Mb RAM SSD - £150
Psion Money - £20
Paint & Compose - £10
Autoroute Express - £30
Games 3a - £15
Series 3 Tools - £15

Contact: Steve
tel: (01869) 246185

Series 3a (512K) - £100
PsiWin 1.0 - £30

Contact: Richard Dungey
tel: (01209) 860829
e-mail: mark_dungey
@compuserve.com

Widget Games Pack 3
Series 3 Speller/Thesaurus
Series 3 spreadsheet
Series 3 Personal Accounts/Expenses
Data Deluxe
Contact Edge
3Fax modem
(all with manuals)

Offers? Buyer pays postage.

Contact: David
tel: (0181) 6726579
e-mail: swift@psionworld.net

2Mb backlit 3c, 2 months old - £320 ono.
2Mb flash SSD - £145
Psifax (SSD) - £40
PsiMail Internet - £50
Scrabble (SSD) - £40
Autoroute Express - (SSD) - £30
3c printer cable - £25
Games 3a - £20

or will sell for £620 the lot.

Contact: David Smythe
tel: +353 872 512512 (Ireland)
fax: +353 869 133311
e-mail: david@clubi.ie

"On The Net"

The latest gossip from the Information Superhighway

Pete Sipple has been lurking in the various online conferences once again to bring us the latest news and views from Psion users around the world.

I make no apologies. As there has only been one major topic under discussion, this issue's 'On The Net' is dedicated to the new Series 5 hardware. Here are some first impressions:

"What a beautifully designed machine. Seems very sturdy (but the hinges are familiar looking!) The processor is very quick, but since it is 32 bit all software for the 3a & 3c will NOT work on the new machine. The finish on the case is somewhere between the 3a and 3c (but not rubberised). The great thing is the new keyboard! You can actually touch type on it and the pen interface is really quite nice!" *(chunala@pipeline.com)*

"Can someone tell me if applications that we currently run on a Series 3a will run on a Series 5? I would like to upgrade but if I can't run the applications from my 3a, then I might just decide to stay with what I have." *(dahauss@thelab.com)*

"Afraid not. Everything is totally different, and porting S3a programs is not that simple. Only OPL programs that did not rely on system calls can be ported at the moment. Small programs might be OK, but as an example (possibly extreme) it has taken me every spare minute for over 2 months to convert S3ABANK to S5BANK." *(alanrichey@aol.com)*

"I'm an avid user of Windows CE (an NEC MobilePro 400), but I saw that the Psion software is much richer and more powerful than the Pocket Word, Pocket Excel etc... They are real full-blown apps. WinCE apps are just too basic (for example, you cannot include graphics easily in Pocket Word). These are immature products. The Psion equivalents are REAL applications. I suspect that Microsoft is already dismantling Series 5s in order to discover the secrets of the Psion, so that they can copy it for CE 2.0." *(r-hove@ti.com)*

As news of the new machines became public, dedicated Psion users wanted to get their hands on them. In the UK and the US machines were around—if you knew where to look. The same appears to be true for the rest of the world...

"I want one! I have visited Psion at Greenford, and they wouldn't even show me one. I have phoned Psion Customer Support daily. I am the world's worst at waiting. Anything is available at a price, but in this case it seems not. I was thinking of going abroad for a two week holiday commencing 5th July, but how can I? It's really affecting me, I can't sleep!" *(s.webb@virgin.net)*

"Do you know how many major retail stores here stock the Psion? Hardly any"

"Hey, you've got no right to complain because you live in the UK, TRY LIVING IN AUSTRALIA! I've been waiting for a Psion since the 1st of May. Do you know how many major retail stores here stock the Psion? Hardly any, and those that do only get the stock months after the official UK/US release dates. I would give anything to live in a country where the best devices are created and initially distributed, instead of waiting months like the things are hand-me-downs." *(psinet@aic.net.aus)*

"Try living in Switzerland and being a Psion dealer! You get all sorts of questions/requests and you know that the Series 5 will not be available here from the Swiss importer before the end of September! How sad! How do you want me to do business this way? Simply impossible... I'm almost forced to import some myself!" *(pfund3@uni2a.unige.ch)*

So what about the hardware itself? The screen contrast has already begun to cause some concern.

"I returned the Psion 5 after only five hours of use. While I am an admirer of the 5, it's completely failed as a suitable upgrade to the 3C. While the screen is an improvement to CE computers, it remains a considerable compromise to the 3c. I m not sure why this happens to be the case, but in a side-by-side comparison, the 5 had considerably more glare, and far less definition." *(dwheelan@slip.net)*

"I have to agree—I've got a 5 and a 3c sitting right here next to each other, and the 5 is definitely significantly harder to read in this light. Judging from this experience and some comments, I have to conclude that Psion is pretty inconsistent about quality control on their LCDs." *(gub@bermuda.io.com)*

"The glare comes from the touch sensitive part of the screen, by nature these have a lot of glare." *(ruff.4@ix.netcom.com)*

The Series 5's main selling point must be the new-style keyboard. Has it been well received?

"Does anyone else think that the Series 5 keyboard isn't sensitive enough? I tried typing on it for a while and had to re-press keys pretty often as it needs a firm push." *(tk@empire.net)*

"I received my Series 5 yesterday morning. The unit is definitely more well built than the 3c and it gives you the solid feel of a quality product. The unit slid open smoothly. The keyboard size is excellent, but like many others I feel that it is a bit too hard and it may take quite a bit of adjustment for me to touch type on it." *(yapmh@singnet.com.sg)*

"The sliding keyboard maximizes the size of the keyboard while maximising stability. Yes, it makes it harder to open one handed, but the 5 and the 3 are targeted at different markets." *(martin@trefoil.demon.co.uk)*

"Sorry, but I must disagree. The size of the keyboard is not maximized in any way. If you compare to the IBM butterfly, where the keyboard actually expanded, the Series 5 keyboard just slides forward. They could have achieved the same keyboard, screen and overall unit size with a simple clamshell type design, like every other handheld on the market. It's a gimmick." *(gideon@worldnet.att.net)*

Pen input is here, but do we have to use the pen that Psion supply? Using your ballpoint isn't a good idea, but is there an alternative?

"You can still get around using only the keyboard, let's just hope that all third parties writing software do the same." *(gbsoftware@aol.com)*

"I use a finger most of the time, but it helps if your fingers are more like chipolatas than full size bangers." *(msaxon@cix.co.uk)*

"Oh yes, I love getting grease all over my computer screen." *(rhialto@falu.demon.co.uk)*

"Or perhaps Psion can start a lucrative sideline in white Snooker referee's gloves?" *(jeremy@jbdr.demon.co.uk)*

Musical machines? Many new owners have reported unusual noises from their backlights...

"My Psion 5 (bought yesterday) hums when the backlight is on. Anyone else have this artefact? By the way—impressions after 12 hours—great!" *(adrian@refine.co.uk)*

"Maybe it's a deliberate warning beep that your batteries are going to go flat very soon." *(gideon@worldnet.att.net)*

"Now that you said it - my 3c does it as well, but it's so quiet that I never noticed. Until I put my ear on the screen. But then I can't type anymore!" *(brendan@t-online.de)*

"I expect this is caused by the DC-DC convertor that increases the voltage from that produced by the batteries." *(fanf@lspace.org)*

"My 5 also hums (in fact 'buzzes' is a better description). I checked out my friend's Cassiopeia. It makes no noise at all with its backlight, but it's not as bright. I don't mind the hum, but what ******s me off is that the spell checker does not recognize the word PSION!" *(rkydd@twowaytv.co.uk)*

"I think one very cool feature of the Psion Series 5 has been barely mentioned... You can set it to turn on when you open it up, and turn off when you close the case! Of course, I end up in the typical refrigerator paranoia of "How can I tell it is really off when I close it?". One way to make sure is close it with the backlight on, and you will see quickly that it has actually turned off." *(mattt@ece.cmu.edu)*

Users who upgrade from a 3a/c will notice some unusual changes in some of the applications. Not all of these have been well received and this has created most of the recent controversy. Many have seen some features disappear, but as well as the new features, some of the gaps have been filled too.

"Can the Series 5 Agenda take appointments which span midnight/several days?" *(facts@cix.co.uk)*

"Yes - there is a 'Days' field in the 'Timed appointment' dialog. There is also a new entry type called an 'Event'. This is a multi-day entry, which simply flags a day as being special (such as being on holiday, or at an exhibition)." *(Jezar@cix.co.uk)*

"I wonder what happened to the Series 5 versions of Jotter, OVAL and Zmodem. I understand that extra comms protocols can be added and I guess that Jotter can be emulated using the new DATA application, but they do seem rather strange omissions." *(jlittlew@cix.co.uk)*

"JOTTER may have disappeared, but its functionality can now be achieved through the new Database app. Labels in DATA now have a type, one of the available types is 'memo'. So a database with only one label, which is a 'memo' behaves much as Jotter used to." *(martin@trefoil.demon.co.uk)*

"I got my Series 5 4 days ago, and my overall impression is... "Not there yet". Several applications take significant steps backwards, for example: there is no Outline view in WORD; the SHEET application lost the ability to sort; there is no Database command in SHEET anymore for numeric data lookups; the AGENDA has no Month or List view; there is no JOTTER, no FILER and no Series 3a/c compatibility mode. Yes, the hardware is NICE, but the big attraction of Psion always was the great software.

Many of you may comment about the objects and the neat graphics, but in my opinion, many of these features are fluff without solid underlying apps! I think I may return this one, and wait for the much needed 5a!" *(70521.1657 @compuserve.com)*

"Series 5 versus Series 3a/c. What a novelty!... A machine that does what the 3a/3c couldn't but can't do what it could." *(gtsmith@psionworld.net)*

"In reading the threads here in our wonderful little forum, I am struck with the need to state the following: nothing is 'missing' from the Series 5. We have a new Operating System in EPOC 32, all new hardware, and all new applications. While the Series 5 and EPOC 32 may seem like an evolution from the S3 they really shouldn't be viewed this way. The only people who seem to be complaining about the S5 are those that expected something different. For them, Psion has committed the worst thing ever—living up to someone else's expectations. Frankly I am overjoyed with the Series 5, it's the best thing EVER! You have moved to an all new platform, and no one is forcing you to do it either. And if you don't like it, you don't have to buy it." *(74463.1520@ compuserve.com)*

Do not disturb! The new Psion alarms are much more flexible than before.

"Hey, has anyone else noticed that silent alarms (or any of the noisy ones for that matter) flash the little red LED that the dictation buttons use? Finally, a discrete way for my Psion to tell me when to leave meetings. I'm beginning to think that it is thoughtful details like that which really *make* the Series 5." *(john@mediamatics.com)*

"And even better, you can set up 'silent' periods, and can cancel a noisy alarm with the middle dictation button." *(hrm1@cam.ac.uk)*

"You can recall the text of the last alarm you cancelled, which makes the machine 100% better. *(krb@ecs.soton.ac.uk)*

And finally...

"Now that we know what the Series 5 is about, let's get speculating about the Series 6! Any visions from a crystal ball?" *(neil@neilirving.demon.co.uk)*

"I'd like a holographic projection system instead of the screen, built in telepathic interface (who needs a pen or keyboard?), built in document scanner in the hinge, and a built-in satellite receiver & dish so I can watch TV on the move!" *(dolbyn@dircon.co.uk)*

Psion-related discussions take place in several Usenet newsgroups including comp.sys.psion.misc, as well as the Psion conference on CiX, the Psion area on AOL, and the Psion forum on CompuServe.

FOR SALE

Series 3a (512K) boxed and as new - £120 ono.

also:
PsiWin - £45
Psion Money - £25
Pipemania game - £15
Broadoak games pack - £20
Banker - £35.
Leather executive case - £10

Contact: Rob Williams
tel: (01980) 862217

Series 3 Tools - £15
Series 3 Games - £15
Pipemania - £15
Chess - £15
Spell Checker - £20
Autoroute - £20
Notepad Deluxe - £15
DataView Pro - £15
1Mb RAM SSD - £125
512K RAM SSD - £70

Contact: Jason Lewis
tel: 0121 5504420
(evenings or weekends)

3a fax modem with manuals. 6 months old - £100 ono.

Contact: Ian
tel: (0421) 450720 anytime

Series 3a (512K), leather case, Psion Money, Autoroute, 512K RAM SSD, 128K flash SSD - £200.

Contact: Martin Brebner
tel: (0973) 630560 anytime

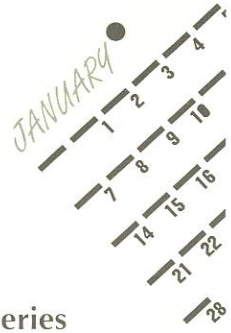
Series 3c (2Mb) ,7 months old, as new, 5 months warranty remaining, including PsiWin software and cable, £270 ono.

also:

Psion Money (SSD) - £25
Psifax (SSD) - £35
PsiMail Internet - £50
(all boxed with manuals)

Contact: Gavin Bailey
tel: (0181) 8894769
e-mail: gbailey@psionworld.net

Making a DATE



Steve Clack concludes our look at how Psion computers handle dates, and how to master Series 3/Siena SHEET's limited date-handling facilities

In the first part of this article we looked at how the Series 3 and Siena machines handle dates in all the built-in applications, and how to get around SHEET's less than satisfactory methods for date entry. In this concluding part we wrap up the discussion of dates, examine how time handling ties in with dates, and summarize how things have changed on the new Series 5.

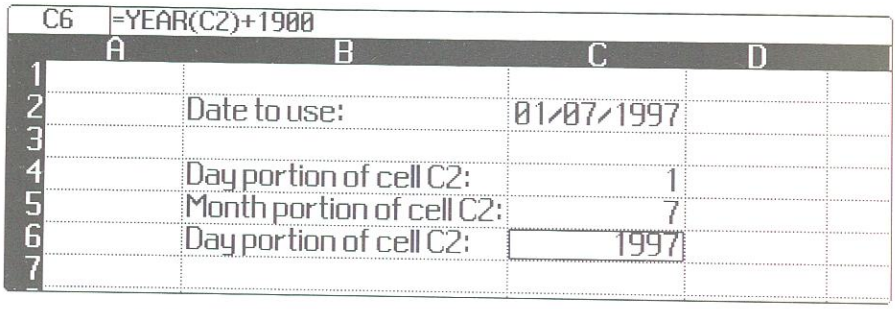
Partial dates

So far we've only looked at ways to enter an *entire* date, in other words how to define the day, month and the year. If you are compiling a spreadsheet where you wish to display either the day, month or year component of the date in separate cells, the following functions can be used:

DAY(x) - returns (displays) the day of the month component (a number from 1-31) of the date in cell 'x'.

MONTH(x) - returns the month component (1-12) of the date in cell 'x'.

YEAR(x) - returns the year component of the date in cell 'x'. Note that the result doesn't represent the *actual* year, but a number between 0 and 255. You may remember from the last issue that '0' represents the year 1900, and 255 represents the last year that the Series 3 can handle, i.e. 2155 (a.d., of course!) If you want to enter the year correctly then just add 1900 to the result.



Chopped dates—breaking them into day, month and year

As an example, if you want to extract the year from '1/1/97' entered in cell A1, using the formula `=YEAR(C2)` will give a result of '97'. Therefore entering the formula as `=YEAR(C2)+1900` will give the correct result of '1997'.

If you want to use these functions in worksheets, just enter them as shown in the example screenshot above. It's important that the date you want to analyse is entered *properly*, in other words not in the form `'1/7/97`, or else SHEET will be unable to interpret it.

Time too!

As we briefly mentioned in the last article, the *date number* function also contains the precise time of day within its number. Ignoring the integer (whole number) part, the fraction to the right of the decimal point represents the seconds, minutes and hours since midnight (00:00am). Thus 0.5 represents half of 24 hours, or 12 noon. 0.75 is three quarters of 24 hours, or 6pm exactly, and an odd figure like 0.33333 represents 7:59am. If you have a full date entered as a *date number* then you can display the time portion of it simply by formatting the cell as 'time' rather than date. This will show the time in hours and minutes: a *date number* of 33333.33333 (actually 7:59am on 5th April 1991) will display '7:59am' if formatted in this way.

This method only displays precision to the nearest minute. To get it to the nearest second, use the formula `SECOND(x)`, where 'x' is the *date number* as above. In the above example, `SECOND(33333.33333)` will give a value of 59, showing that the *accurate* representation is 7:59:59am on 5th April 1991—one second before 8am.

In the same way as you would extract day, month or year information from a date number, the functions HOUR(x), MINUTE(x) and SECOND(x) will extract the hours, minutes or seconds from the time portion.

An on-screen clock

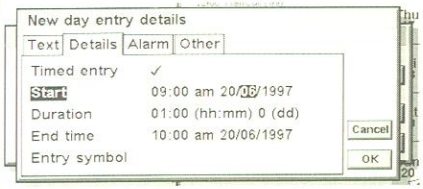
If you want to display the current time of day on a worksheet (generally to use it in a calculation), simply enter the formula `=NOW` and format the cell as 'Time'. Provided that the 'Recalculate now' option set to 'on', it will update every time you press the <Enter> key.

Dates on the '5'

Following the appearance of the Series 5, it's worth noting the most significant differences you can expect to find:

AGENDA

In the Series 5 AGENDA you can still use the same old <Tab> keystrokes to bring up one, three and twelve month calendars. Pressing <Ctrl><J> now displays a calendar instead of the Series 3's dialog box. Whenever you enter a dialog box containing a date you can no longer use the arrow keys to change it. You either have to press the <Tab> key to bring up the calendar, or enter the day, month or year manually.



Entering dates in the Series 5 AGENDA

General

There's still no way to insert the current date into other applications on the Series 5, and no macro software that will automate the task as yet. Let's hope that a suitable macro program appears soon.

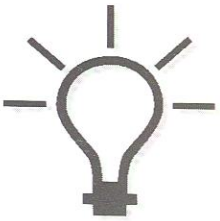
SHEET

The great news on Series 5 SHEET is that none of the agonising date handling workarounds explained in the last issue are required. Dates can now be entered directly as '1/7/97' or '1 7 97' (without the quotes). You can even use something other than a space or '/' between the number, by setting a different 'date separator' character under the 'International' setting in control panel. Times can be entered directly too, using the form '07:59:59'.

There are now 13 different date formats to choose from, plus another six giving date and time together, and four for time only. These give the choice to display dates as '01/07/97', '4 Mar 97', 'March', 'March 4, 1997', etc.

All of the earlier Series 3 date and time functions work as before, and the straightforward method of entering dates and times into cells on the Series 5 addresses one of the limitations of the older machines.

Hints & Tips



Get the most out of your Psion computer! Gareth Wild wins a free leather case for his WORD shortcut...

Scientific Psion

Use the following emphases in Series 3 scientific WORD documents:

Define them by pressing <Shift><Psion><K>.

- *Subscript Pica 12* is best for numbers in chemical formulae (name it 'cc') e.g. CO_2, H_2O, etc.
- *Superscript Pica 12* is best for the symbols for ions in chemical molecules and powers in equations (name it 'ff') e.g. Na^+ Cl^- or $2x^4$.
- *Superscript Pica 10* is best for the relative molecular mass of radioisotopes (call it 'is') e.g. 131^I or 14^C etc. This is also useful for the 'rd' in 3^{rd}, and the 'st' in 1^{st}, etc.

I hope they may be some use to fellow scientists

Gareth Wild
Rochdale, Lancashire

Boost your performance

For repeating AGENDA items on the Series 3, use 'Next only' to minimize screen clutter.

Applications that hang on system interrupts (alarms, events, battery monitors etc.) can slow your machine down quite significantly, as can applications that take up large chunks of memory. Closing these apps when they are not required will speed up response significantly. If in doubt, shut all the programs down and start again. If the machine still seems slow, back it up and do a warm reset—a cold one will also work, *but you must backup your information first,* as it will all be erased, and you will lose a lot of configuration settings, including time, date, etc.

Steven Murgan
Louisville, Kentucky, USA

Quick access...

If you use a file manager application on your 3a or Siena, keep the icon at the far left (or right) of the screen so that you can instantly get to it by pressing <Psion><Home> or <Psion><End>. Also, keep all your other most frequently used programs close to the far left or far right of the screen, so that you can always jump to those ends of the screen list with these keystrokes.

Jill Dick
Oldacre, Derbyshire

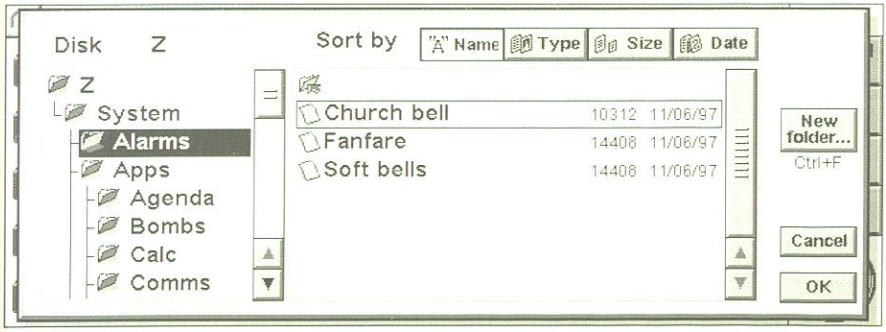
Series 5 ROM access

You can access the Series 5 ROM (assigned as the 'Z' drive) from the 'Browse folders' menu. Here's the procedure:

1. First you must go into 'Preferences...' from the 'Tools' menu, and set 'Show System folder' so that it is ticked.
2. Then, instead of pressing <Ctrl><G>, bring up the browser from the system screen by using the alternative hotkey command of <Ctrl><Tab>.
3. After allowing a second or two for the internal directory tree to appear, tap the 'Disk' box in the top left corner of the screen, and select drive 'Z'.

The full directory tree for the internal ROM will then be displayed, and you can press <Enter> on a folder or filename and jump back into the system screen. From this point you can even copy the ROM-based files to 'C' or 'D', though they won't run due to the 'absolute addressing' used for ROM-based programs.

This technique is useful to take a look at what's built into the machine, and you can examine the file sizes and last modification dates of all the internal software.



The back door into your Series 5's ROM—see above

Murgan's Musings

Stephen Murgan takes a look at the Psion spreadsheet, and some rather odd uses for it...

The spreadsheet holds a rather unique place in the history of computing. The first spreadsheet, *Visicalc*, sold a million computers and put a little startup company called Apple on the map. Over the years, spreadsheets have developed into immensely powerful analytical tools, and when the Psion Series 3 hit the streets one of the first add-ons to be made available for the new machine was a spreadsheet program—which became so popular that it was later included as standard in the 3a.

Spreadsheets are of course a useful tool for keeping track of bank accounts, costs and other number-based work, but in addition they are an ideal way of presenting any information in a tabular fashion. Information entered in this format can easily be updated, sorted and graphed, and summary totals can be recalculated automatically or at the touch of a button.

As an hourly-paid consultant, it is important that I log the hours at a client site accurately, so I designed a spreadsheet for the purpose (on an alleged 'Gatwick Express' train about three years ago). All I have to do is enter the times that I arrive and leave and the start and end of lunch, and the spreadsheet does the rest, working out the hours for the day and generating weekly totals. Archiving a copy at the end of each month ('ts_jan', 'ts_feb', etc.) means that I automatically keep records going back for a whole year. The only maintenance required is that each month I also move the weekends so that the date corresponds to the row number.

As you can see from the screenshot at the top of the opposite page it is pretty straightforward, with the rather ugly exception of the minutes-to-hours conversion in column E, which is protected. I had thought of using the TIME data type, but this approach is

E1 =(((D1-INT(D1))*100/60)+INT(D1))-(((A1-INT(A1))*100/60)

	A	B	C	D	E	F	G	H	I	J
1	8.00	12.30	13.45	16.00	6.75		6.75			
2	sat				0.00					
3	sun				0.00					
4	8.00	12.00	12.30	17.45	9.25		42.5			
5	7.30	13.00	13.30	17.45	9.75					
6	7.45	12.15	12.45	16.00	7.75					
7	9.00	12.00	14.00	17.45	6.75					
8	7.30	11.30	12.00	17.00	9.00					
9	sat				0.00					

Timesheet Spreadsheet

actually easier. If you are on CompuServe and want a copy, drop me an e-mail (100121,316) and I'll be happy to send you one.

Perhaps the oddest spreadsheet idea that I have recently come up with is a database of common food and grocery items and prices. For each item I enter its name, brand, size, cost, date and place bought. If I see the item elsewhere cheaper, all I have to do is overwrite the last three items. My philosophy is simple. Don't believe the 'Low low prices' hype—stick to the facts (much to the chagrin of the supermarkets, undoubtedly). Perhaps it seems rather odd to be seen wandering around the aisles with a computer in your hand, but with three supermarkets within a couple of miles of where I live, it pays to shop around. The savings are significant, and it helps to know when it is cheap enough to buy three or four and stock up, saving up to 100% on individual items, and about 30% overall.

It is a sad fact that merchants often seek to boost sales by prominent locations and large signs without actually changing the price. It seems that knowledge really is power, and it pays to know when a claimed 'lowest price' is nothing more than an untruth designed to part people from their money.

D2 0.39

	A	B	C	D	E	F
1	Item	Brand	Size	Price	Date	Store
2	Bananas		lb	0.39	960309	S
3	Bog Rolls	Charmin Big	9	3.87	960309	KM
4	Chicken Pieces - Fresh		lb	0.69	960206	D
5	Deo - Clear Ladies	Dry Idea	2oz	2.4	960308	WD
6	Detergent	Cheer	90oz	5.77	960308	KM
7	Dishwasher Finishing rinse	Jet Dry	7oz	3.97	960309	KM
8	Dishwasher Gel	SunLight	85oz	3.07	960309	KM
9	Drink - Powdered	Gatorade			960206	
10	Milk 2%		Gal	2.39	960206	K

These bananas are *well* overpriced!

Similarly, when recently shopping for a new tape backup drive, I set up a spreadsheet for comparing different makes, costs, number of tapes required and hence estimated total cost of ownership. When I finally decided to purchase a particular model, I set up another spreadsheet with names, magazine page numbers, telephone numbers and advertised prices. I then sorted this table by price and chopped out all but the cheapest dozen, whom I then phoned and obtained quotes for shipping (which ranged from $2 to $27!) and extra tapes ($23 to $37). I also took down the name of the person to whom I spoke and some additional comments.

Finally, I was able to arrive at a bottom-line cost. There was a spread of about $50 from the cheapest to the most expensive—and remember that this was just among the cheapest twelve of an original sample of more than forty. I finally went with the third cheapest (they were predictably closely bunched) as they seemed to know what they were talking about. So far I have not been disappointed. When my monitor curled up its proverbial toes and I went shopping for a new one, I did something similar.

In a few months (when I can afford it, according to my bank forecast spreadsheet!) I will be looking at printers, and will be 'whipping it out' again (oo-er).

In closing, the built-in applications of the Psion have some uses which are not always obvious. I just wish that we could set up links between WORD documents, spreadsheets, AGENDA events and database entries. The new Series 5 of course will allow embedding of certain document types into others, and we'll be reporting on some interesting uses of this feature in a future issue of *Palmtop*.

The Psion Reference

If you would like to be included in this ever-expanding directory then please send details directly to *Palmtop* for free inclusion. If your entry is incomplete or incorrect then please update us!

Discussion Groups

UseNet Groups

comp.sys.psion.announce
comp.sys.psion.apps
comp.sys.psion.marketplace
comp.sys.psion.misc
comp.sys.psion.programmer
comp.sys.psion.reviews
comp.sys.psion.comm

CompuServe Psion discussion	Psion
CiX Psion conference	Psion
AOL - Psion Noticeboard	Psion/General noticeboard - Keyword: Psion

Psion Software

Imperial Archive FTP Site	*ftp://src.doc.ic.ac.uk/packages/psion/icdoc/*
Frontiernet FTP Site	*ftp://ftp.frontiernet.net/pub/psion*
New World Technology FTP Site	*ftp://ftp.nwt.com/*
Cityscape Psion Archive	*ftp://ftp.cityscape.co.uk/pub/psion/*

Usenet Binary Group	*comp.binaries.psion*
CompuServe Psion files area	*Psion* forum
CiX Psion files area	*/files* topic of the Psion conference

Psion FAQ

The Frequently Asked Questions document contains useful information, facts, names, addresses and numbers:

Posted monthly to the *comp.sys.psion.announce* newsgroup.

Available for FTP download from *news.answers* FTP sites, including rtfm.mit.edu/pub/usenet/news.answers/psion-faq/

An online version can be accessed from: http://www.geocities.com/SiliconValley/8130/faq.htm

Available by e-mail. Send an e-mail message to mail-server@rtfm.mit.edu with a message containing the lines "send usenet/news.answers/psion-faq/*" to receive all parts or send a message containing "help" and "index" for more information.

Bulletin Boards

User Group (UK)	+44 (0)1752 780100
Lonely Times (Germany)	+49 911 393 9034
User Group (The Netherlands)	+31 515 574188
Belgian Psion BBS	+32 3 2262079

The Software Directory

Machine key: 3=Series 3, a=Series 3a, c=Series 3c, s=Siena, 5=Series 5
Items marked with a star (*) have been added or updated since the last issue

Name	Notes	File name	Version	Size	Machine	Author	Price
Business							
Contact Edge	Contact manager	EDGE45.ZIP	4.5	76K	a/c	TCS/Ad Bosch	FREE
*Plan	Project manager	PLAN.ZIP	4.2	102K	a/c/s	Andy Clarkson	£15
*ProPoc	Project manager	PROPOP.ZIP	2.2	182K	a/c	Berthold Daum	A$99
Relate	Contact manager	RELATE10.ZIP	1.0	19K	s	Ad Bosch	£10
Communications Software							
Faxit	Fax sender	FAXIT14.ZIP	1.4	28K	a/c	Walter Wright	£14
FreeVT	VT100 terminal emulator	FREEVT04.ZIP	0.4	19K	a/c	Nils Faerber	FREE
*JBCIS	Add-on to ReadCIS	JBCIS.ZIP	1.2.2i	48K	a/c	John Boyce	FREE
ReadCIS	Compuserve comms package	READCIS.ZIP	1.7.5	93K	a/c	David Keppler	£16/$25
ReadCIX	CIX comms package	READ49C.ZIP	4.9	109K	a/c	David Keppler	FREE
Termit	VT100 terminal emulator	TERMIT.ZIP	1.1	25K	a/c	Serge Shestopalov	£15
*Websurf	Offline HTML browser	WEBSRF173.ZIP	1.73	40K	a/c	Arnaud Weil	£12
Conversion Packages							
Conversion Calc	Conversion package	CON3A.ZIP	6.1c	103K	a/c	T Bentinck	??
Convert 3	Conversion package	CONV11C.ZIP	1.1c	12.8K	3	P Synott	£8
*Convert 3a	Conversion package	CONV41A.ZIP	4.1a	26K	a/c	P Synott	£8
Convert 2.1	Conversion package	CNV21.ZIP	2.1	27K	a/c	T Nemec	$10
*ConVert 2	Conversion package	CNVT2-16.ZIP	1.6	9K	a/c	Jon Duff	£10
*Toolkit 1	Plus other utilities	n/a	n/a	n/a	n/a	Purple Software	£40
Database Applications							
*DataImp	Video/music/photo DB	IMP120.ZIP	1.2	64K	a/c	Patrick Bell	£15
*JBData	Database application	JBDATA.ZIP	1.5.1	66K	a/c	John Boyce	FREE
*DataView	Database application	n/a	n/a	n/a	a/c	Purple Software	£35
*DataView Pro	Uprated from DataView	n/a	n/a	n/a	a/c	Purple Software	£60
*DataDeLuxe	Database App	n/a	??	n/a	??	Pocket & Soul	£50
Drawing Packages							
Draw	Draw	DRAW284.ZIP	2.84	60K	a/c	Rick Andrews	£10
*DrawIt	Vector drawing	n/a	n/a	n/a	a/c	Purple Software	£40
*Icon Draw	Draw icons	ICONDRAW.ZIP	1.1	5K	a/c	Jon Duff	£10
Paint & Compose	Draw/music	n/a	2.01F	128K	a/c	Widget Software	£39.95
*PicPoc	Drawing	PIC3A.ZIP	2.67	109K	??	Berthold Daum	A$50
S3A Draw	Icon/picture editor	S3ADRAW3.ZIP	1.3	74K	a/c	Alan Richey	$15
SNA Draw	Icon/picture editor	SNADRAW0.ZIP	1.0	72K	s	Alan Richey	$15
File Managers							
3T	File manager	3T_139.ZIP	1.39	15K	a/c	Roger Muggleton	FREE
3T (Siena)	File manager	3TS_101.ZIP	1.01	8K	s	Roger Muggleton	FREE
*File Manager	Part of Toolkit 1	n/a	n/a	n/a	3/a/c/s	Purple Software	£40
*Filer	File manager	FILER30.ZIP	3.0	84K	a/c	T Nemec	$30

*JBTree	File manager	JBTREE.ZIP	4.2.6	33K	a/c	John Boyce	FREE
*SnFile	File manager	SNFILE11.ZIP	v1.1	24K	s	Richard Wakelin	£10
*Synchro	File Synchronization	SYNCHRO.ZIP	3.1	15K	a/c	Jean-Philippe Pasquier	- $10
Utils 3a	File manager	UTILS2.ZIP	2.3	45K	a/c	G P Tappenden	??
X3Tree	File manager	X3TREE12.ZIP	1.21	42K	a/c	Richard Wakelin	£10

Finance Packages

Bank	Accounts package	BANK843.ZIP	8.43	18K	3	Pete Sipple	£5
*Banker	Accounts package	n/a	2.0	??	??	Pelican Software	£60
BankPlus	Accounts package	BANKP22.ZIP	v2.2	40K	a/c	Pete Sipple	£8
BankPlus	Accounts package	BANKS101.ZIP	1.1s	32K	s	Pete Sipple	£8
*DP Bank	Accounts package	DPBANK16.ZIP	1.6	71K	a/c	Daniel Pfund	£10
Expense	Expense tracking	EXPENS10.ZIP	1.0	7K	3	Julius K Bjornsson	??
Finance Pack	Accounts package	n/a	4.20F	256K	a/c	Widget Software	£49.95
*Financial Advisor	Mortgage/pension calculator	ADVISOR4.ZIP	4.0	5K	3/a/c/s	Gary Perlmutter	£7
*Psion Money	Accounts package	n/a	??	n/a	a/c	Psion PLC	£50
S3A Bank	Accounts package	S3ABANK19.ZIP	1.9	257K	a/c	Alan Richey	$30
*S5 Bank	Accounts package	S5BANK10.ZIP	1.0	390K	5	Alan Richey	$30
Sna Bank	Accounts package	SNABANK2.ZIP	1.2	240K	s	Alan Richey	$30
S3A Expenses	Expense account tracker	S3AEXP2.ZIP	1.2	66K	a/c	Alan Richey	$15
SNA Expenses	Expense account tracker	SNAEXP0.ZIP	1.0	66K	s	Alan Richey	$15
S3A Fuel	Fuel consumption monitor	S3AFUEL7.ZIP	1.7	42K	a/c	Alan Richey	$10
SNA Fuel	Fuel consumption monitor	SNAFUEL2.ZIP	1.2	40K	s	Alan Richey	$10
S3A Home	Home inventory	S3AHOME4.ZIP	1.4	44K	a/c	Alan Richey	$10
SNA Home	Home inventory	SNAHOME0.ZIP	1.0	44K	s	Alan Richey	$10
S3A Invest	Investment tracker	S3AINV14.ZIP	1.4	44K	a/c	Alan Richey	$10
SNA Invest	Investment tracker	SNAINV0.ZIP	1.0	44K	s	Alan Richey	$10
S3A Planner	Budget planner	S3APLAN5.ZIP	1.5	32K	a/c	Alan Richey	$10
SNA Planner	Budget planner	SNAPLAN1.ZIP	1.1	32K	s	Alan Richey	$10

General Utilities

Agenda Dump	Agenda reporting tool	AGDMP104.ZIP	1.04	17K	a/c	Simon Pooley	FREE
*Alerts	Alert manager	ALERTS10.ZIP	1.0	16K	a/c	Max Bisschop	FREE
*BusyView	Agenda monthly view	BUSYV141.ZIP	1.41	35K	a/c/s	Lieuwe de Vries	$25
DskUse	Requires MACSYS v2.0	DSKUSE.ZIP	1.3	6K	a/c	Lord Wodehouse	FREE
GBatt	Battery monitor	GBATT14b.OPA	1.4	10K	a/c	Max Bisschop	FREE
Geoclock	World daylight map	GEOCLOCK.ZIP	1.55	14K	a/c	John Davies	FREE
*JB Active	Application manager	JBACTIVE19.ZIP	1.9.1	23K	a/c	John Boyce	FREE
JB Backup	Backup utility	JBCKUP12.ZIP	1.4	15K	a/c	John Boyce	FREE
*JB Find	File locator	JBFIND.ZIP	2.7c	20K	a/c	John Boyce	FREE
JBSort	Database sort	JBSORT13.ZIP	1.3b	12K	a/c	John Boyce	FREE
*JWIN	Information and conversions	JWIN141F.ZIP	1.41F	9K	a/c/s	Phil Spencer	£5
LaunchPad	Application launcher	LPAD201F.ZIP	2.01F	17K	a/c/s	Phil Spencer	£5
MonthVu	AGENDA add-on	MONTHVU.ZIP	1.10D	27K	a/c	CESD	??
*Outlook AGN. Sync.	Synchronizes Outlook 97	OUTLOOKS.EXE	0.4b	2.1Mb	a/c/s	Brian Cadge	$26
Pason	Password on startup	PASON4C.ZIP	4C	9K	a/c	A Lord	??
*Procyon Light	Astronomy/planetarium	P_LHT202.ZIP	2.02	240K	a/c	Van Can/Sussenbach	- FREE
*PsiOn	Password utility	PSION143.ZIP	1.4.3	17K	a/c/s	Paul Hargreaves	FREE
*PassApps (Siena)	AGENDA/DATA password	PASAPPSN.ZIP	1.9F	9K	s	Phil Spencer	£5
PassApps (3a)	AGENDA/DATA password	PASAPP3A.ZIP	1.9F	9K	a	Phil Spencer	£5
PassApps (3c)	AGENDA/DATA password	PASAPP3C.ZIP	1.9F	9K	c	Phil Spencer	£5
S3A Task	To-do manager	S3ATASK2.ZIP	1.2	66K	a/c	Alan Richey	$15
*Saikan	Japanese character (Kanji) dict.	SAIKAN13.ZIP	1.3	1Mb	a/c	Jamie Packer	FREE
Stopwatch	10mS resolution stopwatch	STPWT201.ZIP	2.01	8K	a/c	Simon Pooley	FREE

*Stopwatch!	Basic stopwatch	SW.ZIP	1.05	5K	a/c	K McLoughlin	FREE
SysMemv2	Requires MACSYS v2.0	SYSMEM2.ZIP	2.0	6K	a/c	Lord Wodehouse	FREE
TimeMan	Time utilities	TIMEMN36.ZIP	3.6f	40K	a/c	Phil Spencer	£8
Tone Pad	DTMF dialer/timer	TONEPD11.ZIP	1.1	10K	a/c	Simon Pooley	FREE
Unzip	ZIP file decompressor	FUNZIP.ZIP	1.4	10K	a/c	Jochen Siegenthaler	FREE

Macro Software

KMAC	Macro software	KMACRO.ZIP	??	64K	a/c	David Wood	??
MACSYS	Macro software	MACSYS.ZIP	2.0	40K	a/c	Tom Dolbilin	FREE

Miscellaneous applications

Colleague	Phone contact manager	COLLEAGUE.ZIP	1.5	15K	a/c/s	Ad Bosch	FREE
Facsman	Facilities manaement	FMAN143.ZIP	1.43	38K	a/c/s	Gary Bainbridge	£15
*Fit4Life	Health and fitness	FIT4LIF3.ZIP	1.3	28K	3/a/c/s	Steve Litchfield	FREE
Geni	Family tree browser	GENI-120.ZIP	1.20	42K	a/c	Martin N Dunstan	£15
*GolfCard	Golf database	GOLFC201.ZIP	2.01s	70K	s	M-P(Golf)Systems	£25
*Graph 3a	Graph plotter	GRAF3A14.ZIP	1.4	36K	a/c	Gareth Wild	£8
KallCost	Phone call timer	n/a	2.0.08	n/a	3/a/c	Widget Software	£20
*Kgene	Genealogy package	KGENE107.ZIP	1.07	21K	a/c	Kevin Groves	FREE
Linkwise	Connect to Novell Groupwise	n/a	1.1	n/a	a/c/s	Advansys	A$99.50
*Lotto3a	Lottery graphical analyser	LOTTO422.ZIP	4.22	30K	a/c	Patrick Bell	£12
*MemoVoc	Voice memo manager	n/a	3.0	n/a	a/c	David Joyce	£20
My Car	Fuel consumption monitor	MYCAR416.ZIP	4.16	25K	a/c	Ad Bosch	£15
Notable Dates/Events	1997 dates/events	N/A	1.21	25K	a/c	On-Board Info Ltd	£12.95
*Notepad Deluxe	Notepad/utilities	n/a	??	n/a	??	Pelican Software	£60
Polaris	Astronomy/sky chart	POLAR13.ZIP	1.3	200K	a/c	Achay Doan	$15
*Psi-Tact	Contact manager	PSI-TACT.ZIP	1.4a	80K	a/c	Tony Crocker	£15
PUR	PowerUp memos	PUR130F.ZIP	1.30F	26K	a/c	Brendan W Breede	$20
Reader	Text reader	READER23.ZIP	2.3	83K	a/c	Barry Childress	??
*Shoplist	Shopping list assistant	SLIST113.ZIP	1.13	34K	a/c	Hugh Matthews	£10
S3a Collect	Book/video collection mgr.	S3ACOLL2.ZIP	1.2	47K	a/c	Alan Richey	$10
Sna Collect	Book/video collection mgr.	SNACOLL0.ZIP	1.0	47K	s	Alan Richey	$10
*Toolkit 1	Utilities	n/a	n/a	n/a	a/c	Purple Software	£40
*Toolkit 2	Utilities	n/a	n/a	n/a	a/c	Purple Software	£40

Mapping

GPS AutoRoute	GPS add-on for AutoRoute	AGPS10.ZIP	1.0	19K	a/c	Mike Rudin	FREE
GPS Mapping	GPS reader	GPSB0_09.ZIP	??	62K	a/c	Simon Taylor	FREE
*Psi-Mapper	UK mapping	MAPA47.ZIP	5.0	106K	a/c	Steve Litchfield	£14
Mapper GB	UK mapping	MAPS11.ZIP	1.1	83K	s	Steve Litchfield	£14
*Psi-Mapper France	French mapping	MAPF11.ZIP	1.1	100K	a/c	Steve Litchfield	£14
*Mapper Ireland	Ireland mapping	MAPI15.ZIP	1.5	97K	a/c	Steve Litchfield	£9
*Subway	London underground	SUBW1A.ZIP	1.0a	25K	a/c/s	Tat Tang	Charity
*Tube 3a	London underground	n/a	??	120K	a/c	Simon Webb	£31.90
*W2	World map	W2.ZIP	1.1	4K	3/a/c/s	John McAleely	FREE

Missed you?

Have we missed any of your products from this listing? If so, then either send the details to the Editor (see contact details on page 1), or preferably use the special online update form on our World Wide Web site to submit or update your entry.

An introduction to SHAREWARE

On the pages of *Palmtop* you'll read a lot about '*shareware*'. With the introduction of the Siena and now the Series 5 the shareware scene is getting much busier than before, but there are still many readers who've never taken the plunge into the vast archives of Psion software. In an effort to make Shareware more accessible, here is a quick guide to what's available, and how to get it...

What is shareware?

Written by professional programmers and enthusiasts to meet specific (and sometimes unusual) needs, shareware is normally supplied for use on a thirty day trial basis. If you like the software then you are expected to send a payment to the author. Each program comes with information on its use and cost.

Where do I get it?

- Via a modem. This is the best option, as you have access to a range of other services too. With a modem, you can 'download' software to your desktop computer or direct onto your Psion machine. Where possible, look for a 28,800K (or higher) modem. If you're new to the Internet, your best bet might be to connect via an Online Service such as *CompuServe*, *AOL* or *CiX* (in the UK) to get a feel for the way we communicate electronically. Many computer magazine cover disks contain the software you need. Connection via an *Internet Service Provider* brings a more direct connection, but can be difficult to set up. If you don't wish to sign up with a service provider, the alternative is to download files from a bulletin board.
- From the *3-lib* shareware library. Shareware is supplied on 3.5" PC disc or copied direct onto an SSD. See the advertisement section for details.
- From a PC-format CD ROM. Available from leading Psion dealers, these discs contain stacks of useful programs and utilities.

How do I use it?

You'll be able to obtain a list of what files are available from any of the above sources . Once you've found the file you want, there are four steps to take:

1. Obtain the files. See above.

2. Uncompress the files. Psion applications normally have more than one component (i.e. the program itself, help files and pictures). These are normally compressed into one file, which makes them easier to distribute. Shareware is most commonly compressed in 'Zip' format, and you can recognise these by the '.ZIP' at the end of the filename. Before you can install and run the program, you need to extract these files with an 'unzip' program. 'Unzippers' are freely available from your shareware supplier. If you use DOS, look for *PKZIP*, Windows 3.1/95 users can use *Winzip*, and Mac users should try *Zipit*. You can unzip files on your Psion without using another computer, using either *PsiZip* or *S3UNZIP*.

3. Copy the files. You now need to transfer the unzipped files onto your Psion (unless you're getting it on SSD). To do this you'll need some external hardware, such as:

- Serial Lead (*3Link*). Connect your Psion to a desktop machine or a modem.
- Cyclone drive. Connect a 3.5" floppy disc drive to your 3a.
- SSD RAM drive. Copy programs to a RAM SSD via your PC's printer port.

Normally, one of the unzipped software files is a text file (i.e. README.TXT), which explains how the program should be installed and where the files need to be copied to on your Psion. Most 3a/3c software comes in the form of an 'application' file, and the .OPA or .APP file needs to live in the \APP\ directory.

4. Install the application. From your 3/3a/3c or Siena system screen, select <Psion><I>, and if the program was copied correctly the filename should appear in the list. Select it, press <Enter>, and your program should be installed and ready to run.

If there are any aspects of shareware that you think need more coverage then we'd like to hear from you. Please send your comments and suggestions to me, care of *Palmtop*.

Pete Sipple - Petesipple@aol.com

Further reading

Shareware - What, Where & How - Page 43, Issue 6

Connecting your Series 3 - Page 41, Issue 5

Going on-line - Page 40, Issue 1

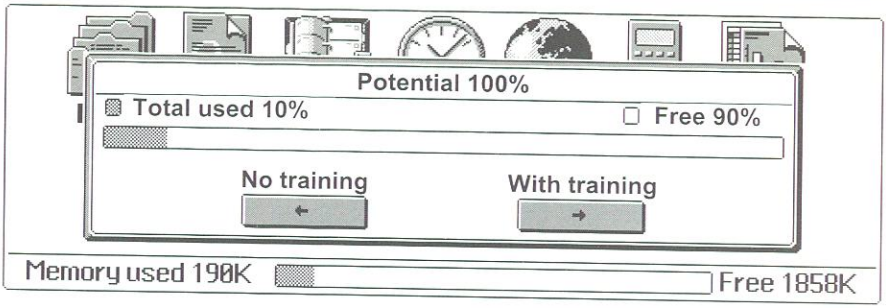
SSD Drive - Page 41, Issue 7

CD ROM - Page 20, Issue 7 ; Page 19, Issue 4

Cyclone - Page 14, Issue 7

PsiZip — Page 28, Issue 12

Get ALL the shareware featured in this issue on a floppy disk - see page 117



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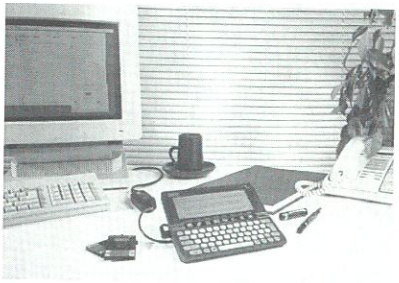

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Lost or stolen Psion?

It your Psion computer has been lost or stolen then you may be interested to know that a UK user has set up an independent worldwide service to keep track of the serial numbers of such machines. Here is the WWW address of the registry (which shows descriptions and serial numbers only—all personal information is kept offline):

http://ourworld.compuserve.com/homepages/groucho/

If you do not have WWW access then you can send details by post, or send an SAE for a printed list of missing machines. Please send your name, address, telephone number, description of item lost or stolen and serial number(s)

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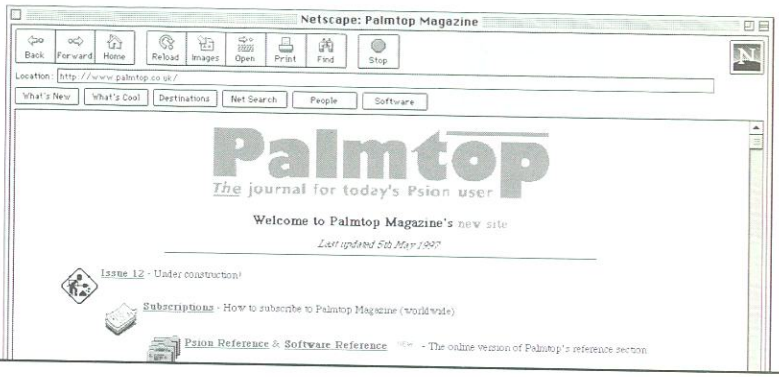

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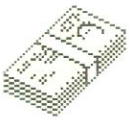

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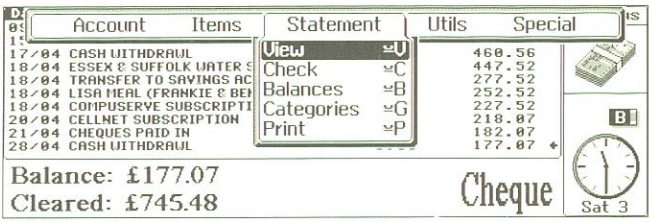

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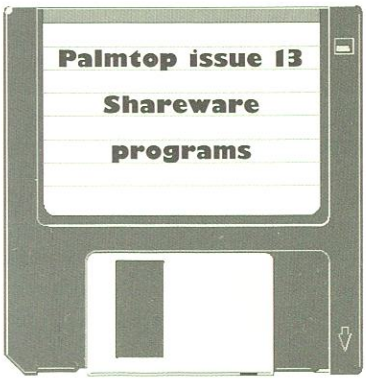
Available from *http://members.aol.com/petesipple/bankplus.htm* and usual shareware sources, Email *psipple@cix.co.uk* for details

Can't find it?



The shareware and freeware programs featured in each issue of *Palmtop* are all available—either from the major FTP sites, authors' WWW sites, or from the major online services.

As a new service for *Palmtop* readers, *3-Lib* are offering a standard 3½" PC floppy disk containing *all* the programs featured in this issue for the benefit of anyone having difficulty finding what they need.

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S3AEXP & SNAEXP Expense Account Monitor £10 (15US$)

This program allows you to monitor your Expense Account, allocating entries to categories and reconciling them once they are claimed. It also includes an optional company car monitor, where usage can also be allocated to categories.

S3AFUEL & SNAFUEL Fuel Consumption Monitor £7 (10US$)

This program allows you to track the fuel consumption for up to 10 vehicles. It is fully configurable, allowing entry and/or display in miles/kilometers and litres/galls. Full details of the previous entries are available, as well as a graphical representation.

S3AHOME & SNAHOME Home Inventory Monitor £7 (10US$)

This program allows you to keep track of the value of your household possessions for insurance purposes. It is based on the Home Inventory module produced for Quicken. At regular intervals you can update all the Items for inflation, and print out the details.

S3AINVEST & SNAINVEST Investment Performance £7 (10US$)

This program allows you to keep track of up to 50 investments. The main screen holds all the details of each investment, including latest price and total value of the portfolio. A second screen then gives a graphical representation of the historical performance.

S3APLAN & SNAPLAN Financial Budget Calendar £7 (10US$)

This program allowsyou to run a household budget account. Up to 30 Agencies can be entered, and monthly bill values assigned and then reconciled as they are paid. The program is based on the Financial Planner module produced for Quicken.

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This program allows you to use an alternative method to the Agenda for recording and managing your tasks that have to be accomplished. It breaks down large projects into tasks of manageable size, categorising,setting priorities, sorting and ordering them.

S3ADRAW & SNADRAW Drawing/Icon Viewer/Editor £10 (15US$)

This program allows you to view, edit or design pictures and icons. It comprises three components, a Picture Viewer, a Picture Editor and an Icon Editor. These allow you to view existing pictures or design, create, and edit bitmap picture or Icons

S3ACOLLECT & SNACOLLECT Collection Manager £7 (10US$)

This program allows you to handle a database of a collection such as records, stamps, books etc. The difference with this program is that as well as the labels being configurable, the screen display, printout and sorting method are also fully configurable.

F A Richey **6001 Natick Court** **Burke, VA 22015** **USA**	**E-Mail: alanrichey@msn.com** All the programs are available on the World Wide Web at: *http://members.aol.com/alanrichey* or on CompuServe, America-On-Line, CIX, & MSN or at: *ftp://ftp.nwt.com/S3A* and *ftp://ftp.nwt.com/Siena* or send a 3.5" disc & stamped addressed envelope to one of these addresses	**F A Richey** **C/O Sonas** **Calgary** **Isle of Mull** **Argyle PA75 6QT** **SCOTLAND**

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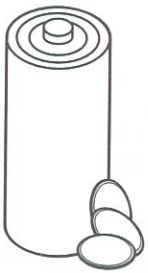

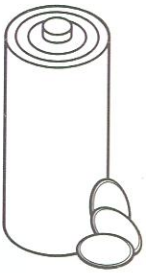

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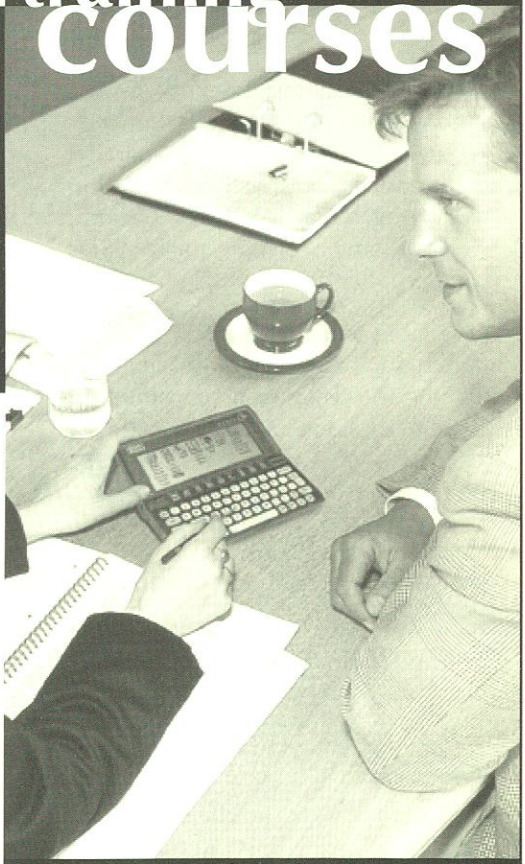

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*Maximum of 6 people per training session Ref: Rob/Palmtops

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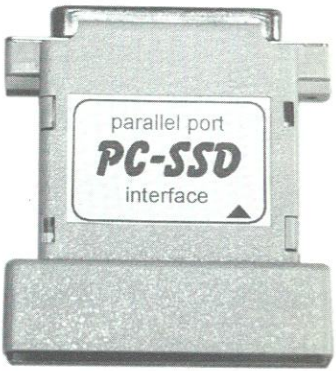
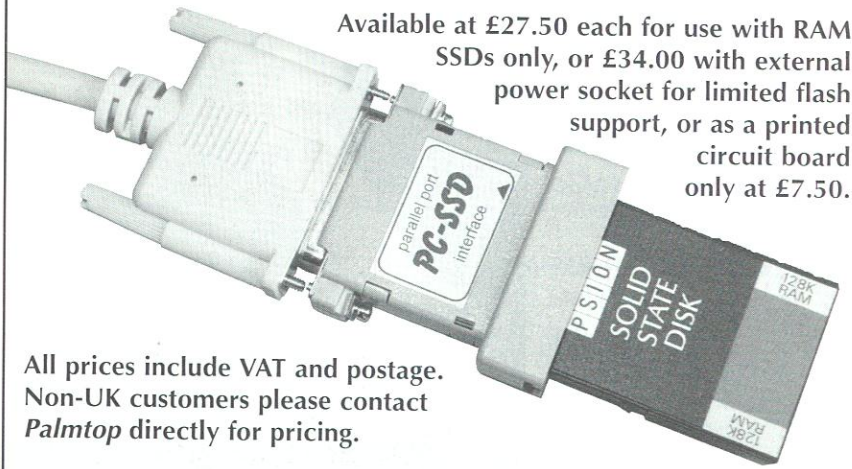
Perform super-fast backup, restore and general file transfers between your RAM SSDs and a PC's parallel (Centronics) port—all from within Microsoft Windows. Also backup, restore and format flash SSDs (under DOS only)



Available only through *Palmtop*, the famous PC-SSD drive—as featured in the do-it-yourself construction article in issue 7. Either order a copy of issue 7 and build it for yourself, or buy one from us!



Available at £27.50 each for use with RAM SSDs only, or £34.00 with external power socket for limited flash support, or as a printed circuit board only at £7.50.

All prices include VAT and postage. Non-UK customers please contact *Palmtop* directly for pricing.

Don't just read Palmtop —wear it!

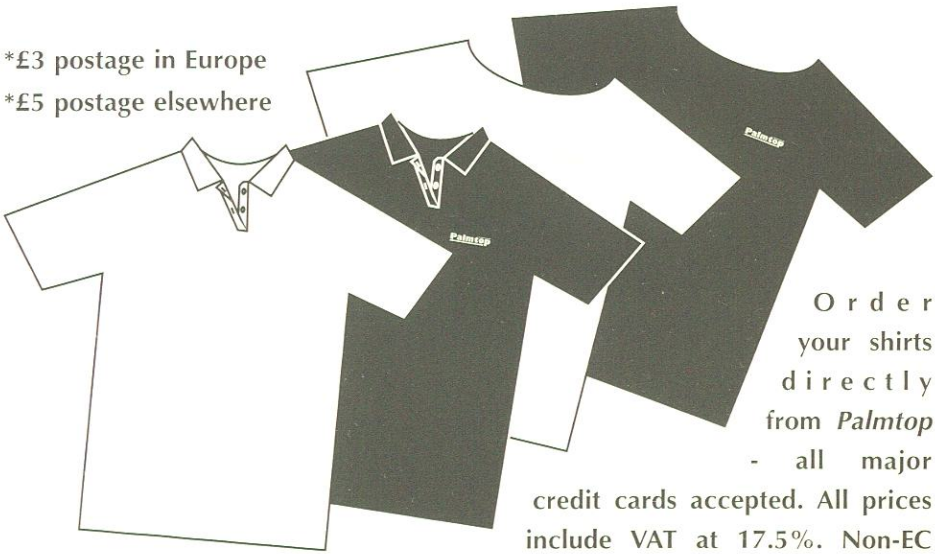
High quality 100% cotton tee shirts and polo shirts with a small silver-grey *Palmtop* logo embroidered onto the left breast—no tacky screen printing to wear off!

Available in BLACK or WHITE, in Medium and Large sizes.

Tee shirts - £12 plus £2 UK postage*

Polo shirts - £17 plus £2 UK postage*

*£3 postage in Europe
*£5 postage elsewhere



Order your shirts directly from *Palmtop* - all major credit cards accepted. All prices include VAT at 17.5%. Non-EC customers call for VAT-free pricing.

Next issue...

Planned for issue 14:

- All the things we couldn't squeeze into this bumper issue...
- A tour of the Psion factory
- Getting to grips with the Series 3 filing system. A beginners guide
- Difficult connections. We wrap up our connectivity series with a look at how to connect your Psion to virtually *any* computer
- Adding colour to your Psion, more ways to customize your 3a/3c...
- Mapping software for the Psion. A roundup of everything on the market
- We look at training videos, an array of smart leather cases, the latest Series 3 and Series 5 software releases, and lots more...

Due out mid-September...

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